

# ICE CREAM FIELD



April 1950

In this issue

Topic of the Month: Plant Layout  
Recent Research on Shrinkage  
New Report on Apple Ice Cream  
"Canasta Sundae" Cashes In

PLEASE ROUTE TO	Owner	Prod. Mgr.	Sls. Mgr.	Adv. Mgr.	Library

# MORE SALES

*in Today's Competition*



*with  
a Colorful  
Package Family*



In self-service competition, the package has to do your sales job without help . . . and quick! You can depend on Sutherland package families to do just that. Flashing design catches the eye, bright colors waken appetites, and flavors are instantly identified for prompt selection. It's so easy! . . . and a related package design, featuring *your* name, builds recognition for pyramiding sales throughout your entire line. Write for prices and full particulars.

All Sutherland linerless cartons made with APRX die-cutting are approved for use on the four leading carton set-up machines.

FOLDING, PARAFFINED, AND LAMINATED CARTONS  
BAKERY PACKAGES - PREPACKAGING BOARDS AND TRAYS

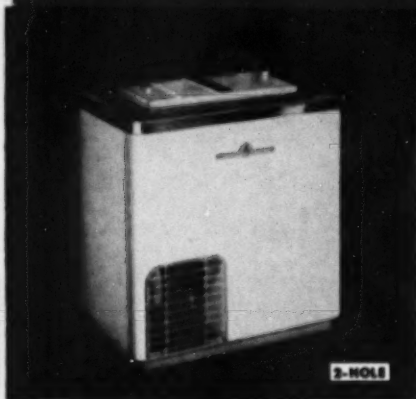


LIQUID-TIGHT CONTAINERS - FOOD TRAYS - PAPERWARE  
EGG CARTONS - PLATES - PAIRS - HANDI-HANDLE CUPS

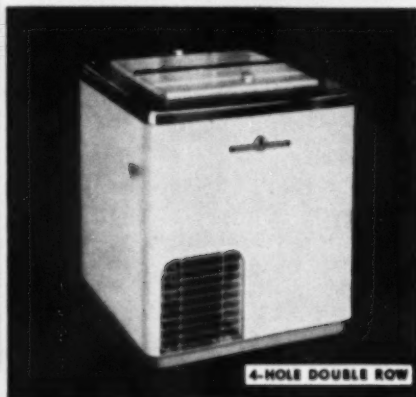
VOL. LV, No. 4, APRIL, 1950. ICE CREAM FIELD is published monthly at 3110 Elm Ave., Baltimore 11, Md., by the I. C. F. Publishing Co., Inc. Address editorial and advertising communications to the New York Office, 19 W. 44th St., New York 18, N. Y. Entered as 2nd class matter at the post office at Baltimore, Md., under the act of March 3, 1879. Subscription rates yearly, \$2 in the U. S., \$2.50 in Canada, \$3 foreign; single copies 25c in the U. S. and Canada, 35c foreign.



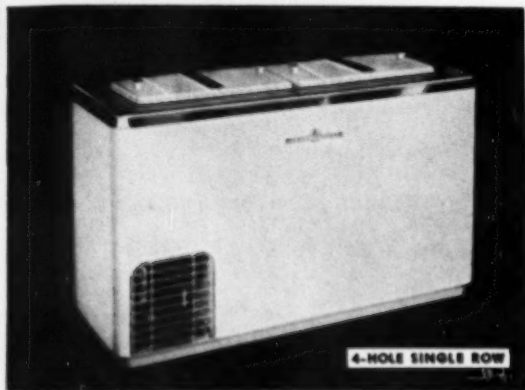
# Better Filling Ways— Saves Never Seen Before



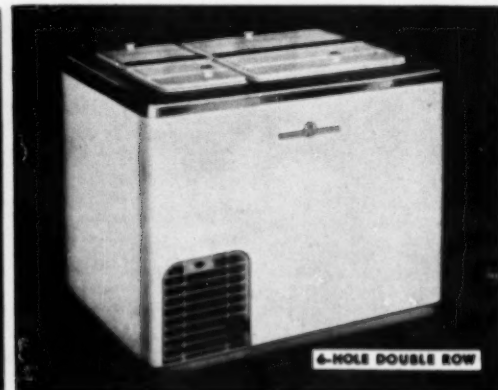
3-HOLE



4-HOLE DOUBLE ROW



4-HOLE SINGLE ROW



6-HOLE DOUBLE ROW

## ALL THE THINGS YOU'VE ASKED FOR

*Are in these NEW Kelvinator Cabinets*

- ✓ Galvanized steel tanks and copper tubing.
- ✓ New top construction to allow more uniform installations—eliminate waste space.
- ✓ Even temperature distribution between deep and shallow sleeves—and from top to bottom of cabinet.
- ✓ Thermostat "well" on double-row cabinets located at front of machine compartment.
- ✓ Heat exchanger located in machine compartment of 6, 8 and 12-hole cabinets.
- ✓ Openings in base of cabinets eliminated to prevent dirt accumulating underneath cabinets.

## Check THE CABINETS YOU NEED FROM THIS LIST

### DIMENSIONS—CAPACITIES—SHIPPING WEIGHTS

MODEL	DIMENSIONS			CAPACITY		APPROX. SHIP. WT.
	LENGTH	WIDTH	HEIGHT	BUCK	PACKAGE	
2SR	31 1/2"	21"	34 1/2"	7 1/2 gal.	102 pts.	238 lbs.
4SR	55 7/16"	21"	34 1/2"	17 1/2 gal.	254 pts.	342 lbs.
4DR	30 1/2"	30 1/2"	34 1/2"	15 gal.	226 pts.	260 lbs.
6DR	42 1 1/16"	30 1/2"	34 1/2"	30 gal.	403 pts.	370 lbs.
8DR	53 1 1/16"	30 1/2"	34 1/2"	40 gal.	560 pts.	427 lbs.
12DR	88 3/16"	30 1/2"	34 1/2"	72 1/2 gal.	952 pts.	710 lbs.

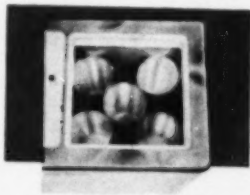
# KELVINATOR

## Sales-Attracting, Cost-Reducing Cabinets

Just count them! *Increased capacities . . . greater durability . . . more dependability . . . lower operating cost . . . greater convenience in use.* Kelvinator brings you all these advantages in its *feature-packed*, beautiful new ice cream cabinets for 1950. You get a selection of cabinets designed and engineered to reduce your handling and service costs. You get con-

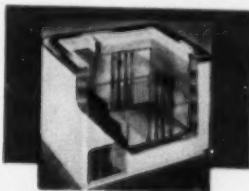
struction and performance features you can be sure will keep your product's quality "just right" . . . for selling and repeat selling. And you get new, "quick-service" and "space-thrifty" features your dealers will welcome at first sight. For complete details, see your Kelvinator representative or write for your copy of Kelvinator's new Ice Cream Cabinet Catalog.

Kelvinator, Division of Nash-Kelvinator Corp.  
Detroit 32, Mich.



**NEW!**

Increased capacity in large compartments of double-row cabinets. Increases bulk-storage capacity of 6-hole cabinet over previous models by 20%—the 8-hole cabinet by 14% . . . with no increase in floor space required.



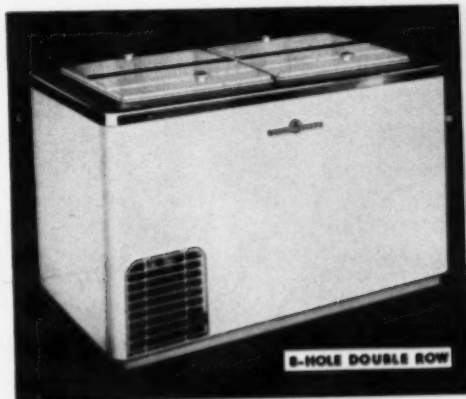
**NEW!**

"Flavor File" dividers are available for use in the large compartment of the Kelvinator 6 and 8-hole double-row cabinets. Can be installed in two positions to divide compartment into 2 or 3 sections for storage of bulk or package ice cream. Makes it easier to keep flavors separated. No screws, rivets or tools needed to install.

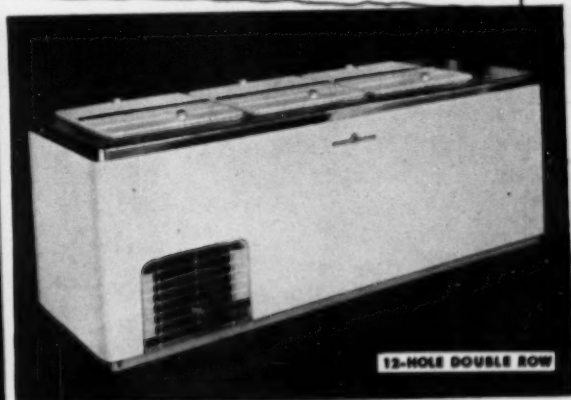


**NEW!**

Beautiful "clear-white" lids of extra-strength modified Polystyrene are durable—light in weight. Exclusive "double-the-width" lids on double-row cabinets give quick access to a variety of flavors—may be placed to open from either side or end.



8-HOLE DOUBLE ROW



12-HOLE DOUBLE ROW

# Tested

**foote & Jenks**

*Vanilla*



FOOTE & JENKS • • JACKSON • MICHIGAN

# **Frigid-Freeze**

REFRIGERATION CORPORATION OF AMERICA, ALBION, MICHIGAN

Sound Engineering and Manufacturing  
"know-how" have resulted in Frigid-  
Freeze Cabinets becoming the choice  
with many of the largest users in the  
Industry - - - Write for literature.

*Division of*

L O N E R G A N   M A N U F A C T U R I N G   C O .

A L B I O N   M I C H I G A N

# Give Sealright Recipe Contest

## That Ice Cream Recipe Idea

...might be a

Prize Winner!

You probably have a special ice cream recipe or a different way of serving ice cream that serves a big hit with your family and friends. This idea — or some other idea that you can think of — may be a winner in this big prize contest. Enter this contest! You'll have fun, and you may win a prize.

Pick up an Official Entry Blank at your neighborhood ice cream fountain or food store. And while you're there, pick up a package of ice cream. Your recipe suggestion must be accompanied by the necessary service emblem (see illustration) which appears in all Sealright paper containers — the package used everywhere by leading manufacturers of quality ice cream and fine foods.

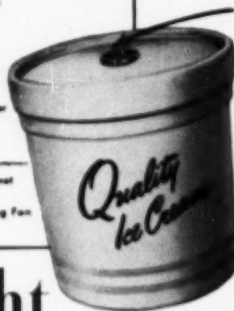


**GRAND PRIZE**  
**PACKARD 2-DOOR SEDAN**  
awarded at end of contest series



### 10 VALUABLE PRIZES FOR BEST IDEAS RECEIVED BY JUNE 30

- WESTINGHOUSE Television Set  
Model 618 T 16 (16 inch screen)
- WESTINGHOUSE Laundromat  
Model L-8
- WESTINGHOUSE Clothes Dryer  
Model D-3A
- WESTINGHOUSE deluxe Refrigerator  
Model RA-7
- WESTINGHOUSE Electric Range  
Model EA-7A
- WESTINGHOUSE Waste-away  
(Electric garbage disposal)  
Model S-4
- WESTINGHOUSE Cabinet Dishwasher  
Model DWA-21
- WESTINGHOUSE Home Freezer  
Model F-8  
plus one year's supply of Sealright Thousand Containers
- WESTINGHOUSE Roaster with Cabinet  
Model R-3
- WESTINGHOUSE Multi-air Ventilating Fan  
Model 18-MA-3



### HERE'S ALL YOU DO TO ENTER:

1. Write what you think is the most unusual and delicious recipe or way of serving ice cream; then complete this statement in 33 additional words or less: "I prefer to buy ice cream packed in Sealright containers because..."
2. Mail your entry to Ice Cream Contest, Post Office Box 68, Chicago 77, Illinois. You may enter this contest only once.
3. Your entry must be accompanied by a Sealright label from the top of any Sealright sanitary paper container, or a representative facsimile.
4. All entries must be postmarked before midnight, June 30, 1950, to be eligible.
5. Entries will be judged on the basis of compliance with these rules, on the aptness of recipe, ease and speed of preparation, novelty or unusual character, and general appeal of the recipe in view of serving ice cream, and on the originality and ingenuity of the suggested restaurant or other Sealright container.
6. All entries will be judged by E. L. Park & Co., Chicago, Illinois. Members of the judges will be Sealright dealers who will be awarded in view of how the entries will be received. Entries, contents and ideas remain the property of Sealright Co., Inc.
7. Any resident of continental United States and Hawaii may request a copy of the official rules and regulations and a supply of Sealright Co., Inc., in advertising agencies and members of their families.
8. This is one of several Ice Cream Recipe Contests. The next contest will be announced in the July 1, 1950 issue of this magazine.
9. The Grand Prize will be awarded to the winning entry at the convenience of the contest series, and before November 15, 1950. Prizes in the next contest will be awarded on or before August 15, 1950.

## Sealright

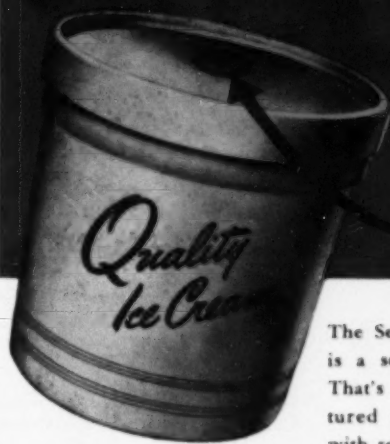
SANITARY PAPER CONTAINERS

Sealright Co., Inc., Toledo, N. Y.; Kansas City, Kansas; Sealright Pacific Ltd., Los Angeles, Calif.; Canadian Sealright Ltd., Scarborough, Ontario, Canada.

This advertisement appears in The Saturday Evening Post—May 27, 1950

**GET OFFICIAL ENTRY BLANK**  
at your neighborhood ice cream  
fountain or food store





The Sealright Nestyle is a selling package. That's why it is featured in connection with selling programs

like this one . . . The Nestyle, with its distinctive shape and kid-glove finish, is the deluxe package in the ice cream field. It's a container which has been featured successfully by the country's best known ice cream companies. If you have not already put this container to work for you, now's the time!

There's nothing that appeals to the average housewife more than matching wits on recipes. Sealright capitalizes on this popular consumer interest with a recipe contest that is really a series of contests. The first contest will be announced in the May 27th issue of the SATURDAY EVENING POST and will feature prizes to be awarded for entries received by June 30th. This message will advise readers that another contest is to follow (see ad on left). A Packard Automobile is to be awarded to the best entry of all those received at the end of the series of contests.

All the reader needs is a Sanitary Service Emblem from either the lid or any part of your Sealright Container and a clever way to serve ice cream. As easy as that.

# Sealright

## SANITARY PAPER CONTAINERS

Sealright Co., Inc., Fulton, N. Y.; Kansas City, Kansas;  
Sealright Pacific, Ltd., Los Angeles, Calif.; Canadian Sealright Co., Ltd.,  
Peterborough, Ontario, Canada.

### Packard 2-Door Sedan



To be awarded at end of contest series

### CONTEST CUSTOM-BUILT FOR ICE CREAM COMPANY USE LOCALLY

The Sealright Recipe Contest Program has been designed for ice cream manufacturers who pack their products in Sealrights. A handsome and colorful fountain display which has a pocket for official entry blanks is available to ice cream companies. When these displays are set up at fountains with your package, it becomes your advertisement!



### DRAMATIC BACK BAR POSTER



Another sales-help for the fountain is a colorful back bar poster featuring the contest, designed so it can be imprinted with your own name to become your own advertisement. Mats for contest newspaper advertisements are also available. Write or call your nearest Sealright representative for full details.

# Coming Events

**APRIL 11-12** — Hotel Sheraton, Worcester, Massachusetts; Annual Conference of New England Association of Retail Ice Cream Manufacturers.

**APRIL 20** — Lafayette, Indiana; Ice Cream Institute at Purdue University.

**APRIL 25-27** — Hotel Mayflower, Washington, D. C.; Third Highway Transportation Congress of the National Highway Users Conference.

**APRIL 24-27** — Navy Pier, Chicago; National Packaging Exposition.

**MAY 7-10** — Hotel Traymore, Atlantic City, New Jersey; Annual Convention of the Flavoring Extract Manufacturers Association.

**MAY 16-18** — Hotel Bedford Springs, Bedford Springs, Pennsylvania; Annual Meeting of the Association of Ice Cream Manufacturers of Pennsylvania, New Jersey and Delaware.

**MAY 21-25** — Hotel Edgewater Beach, Chicago; Decennial conference of the Institute of Food Technologists.

**JUNE 4-7** — Hotel Muehlebach, Kansas City, Missouri; 37th Spring Meeting of the American Society of Refrigerating Engineers.

**JUNE 6-8** — Hotel Biltmore, Palm Beach, Florida; Annual Convention of the Florida Industry Association.

**JUNE 20-21** — Ithaca, New York; 45th Annual Meeting of American Dairy Science Association at Cornell University.

**JUNE 26-28** — Hotel Edgewater Beach, Chicago; Program planning meeting of the Directors of Affiliated Dairy Council Units, under the sponsorship of the National Dairy Council.

**AUGUST 7-8** — Hotel Greenbrier, White Sulphur Springs, West Virginia;

Annual Convention of West Virginia Dairy Products Association.

**SEPTEMBER 13-15** — Hotel Fort Des Moines, Iowa; Annual Convention of the Association of Ice Cream Manufacturers and the Iowa Milk Dealers Association.

**OCTOBER 10-12** — Hotel Mayflower, Washington, D. C.; 17th Annual Convention of the National Association of Retail Ice Cream Manufacturers.

**OCTOBER 16-21** — Atlantic City, New Jersey; 17th Dairy Industries Exposition, staged by the Dairy Industries Supply Association.

**OCTOBER 18-20** — Atlantic City, New Jersey; 46th Annual Convention of the International Association of Ice Cream Manufacturers.

**NOVEMBER 8-9** — Hotel Continental, Kansas City, Missouri; Annual Convention of the Missouri Ice Cream and Milk Institute.

**JANUARY 24-26** — Hotel Carolina, Pinehurst, North Carolina; Annual Convention of the North Carolina Dairy Products Association.

## THE SWING



## IS TO...

### HAV-A-NANA SPLIT



on a  
stick...

### A HIT!!

Successful ice cream manufacturers report that this new taste sensation has skyrocketed novelty sales. Its unusual flavor, its catchy name, and attractive advertising material have made a host of new friends.

No Special Equipment Needed

INCREASE YOUR NOVELTY SALES TOO!

WRITE FOR DETAILS

### "A TASTY TREAT"

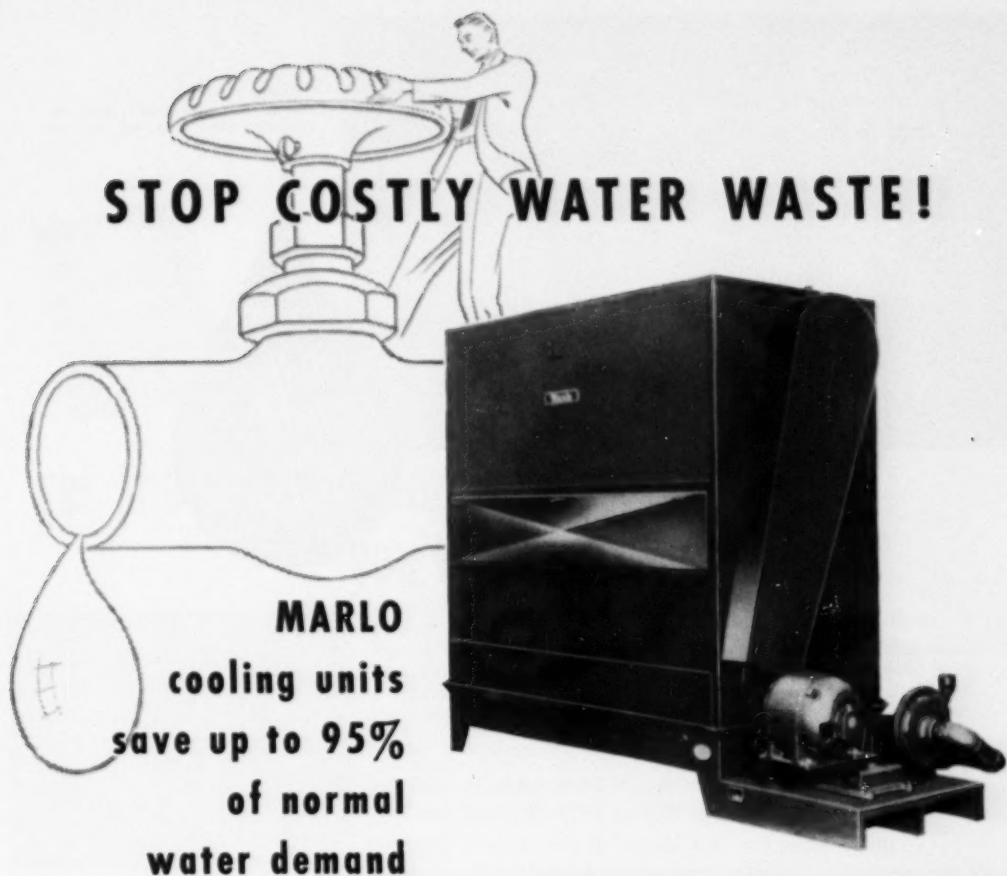
CHOICE FRUIT AND ROASTED ALMONDS  
IN A BANANA COATED SAE.

### ALPHA AROMATICS, INC.

456 Third Ave.,

Brooklyn 22, N. Y.

# STOP COSTLY WATER WASTE!



**MARLO**  
cooling units  
save up to 95%  
of normal  
water demand

**... assure better installations for you!**

## **Water must be used wisely.**

By efficient recycle cooling, Marlo Evaporative Condensers and Cooling Towers get the most out of every drop . . . actually conserve up to 95% of the normal demand for cooling. Your clients will appreciate this saving . . . and these other Marlo PLUS-features too . . .

• **QUIETNESS** . . . No roar of blower blades. Marlo Units feature silent V-

belt drive . . . sound deadening interiors.

## • **DEPENDABLE PERFORMANCE** . . .

Exclusive Marlo "Lektro-Tektor" sump tank unit guards against electrolytic corrosion. Frame, sump tank, eliminators, wheels and scrolls are hot dip galvanized.

★ Write for information on Marlo Evaporative Condensers and Cooling Towers.

**MARLO-HEAT TRANSFER**  
Since 1922

**Marlo COIL CO. • 6135 Manchester Rd. • St. Louis 10, Mo.**

*the tiny drop...*



"Just  
adrop  
in the  
bucket"  
...that's  
how much  
stabilizer  
you use, com-  
pared with the  
amounts of other in-  
gredients in your formula.

☆ But that drop does a tremen-  
dous job...can make a great differ-  
ence in the sale of your ice cream. ☆ The  
texture free of ice, the smoothness of  
blended ingredients, the bursting forth of de-  
licious flavor...all these may depend on the  
performance of this "drop" of stabilizer. ☆ And the  
stabilizer that delivers exceptional performance in  
the ice cream mix is the new and vastly superior  
English gelatine, SPA. ☆ And SPA costs substantially less  
than ordinary gelatines. ☆ SPA has been perfected by a  
new, unique process to do one specific job...to stabilize  
ice cream. Every property, every function of SPA has  
been developed and is ideally suited to the needs,  
the problems and the processes of ice cream  
manufacture. ☆ SPA is a product of B. Young &  
Company, famous for fine gelatines since  
1818. Let us send you a sample, or  
additional information about  
SPA. Write today to:

U. S. REG. U. S. PAT. OFF.

*B. Young & Company of America, Ltd.  
20 Exchange Place, New York 5, N. Y.*

*that  
holds a  
million  
sales*



**SPA**

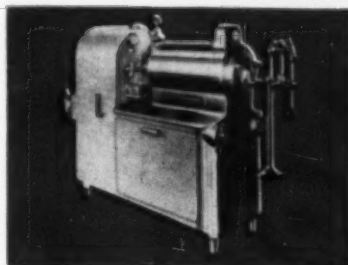
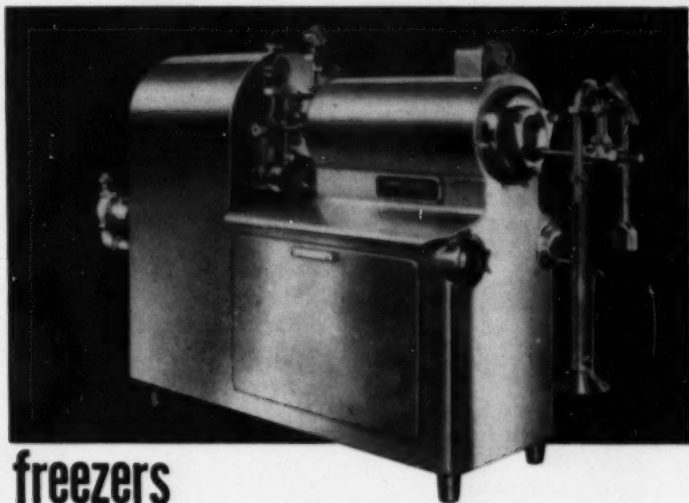
*Gelatine*



All-stainless Silver Star Vogt Instant Freezer. Capacities to 400 gallons an hour.



## get the Vogt freezers you've been needing now!



**White Star**—stainless product contact surfaces with stainless and white enamel base. Capacities to 400 gallons per hour.

The **Cherry-Burrell Fruit Feeder** is an ideal companion for any continuous freezer. Patented method assures feeding with absolute minimum of crushing or bleeding.



**Know Vogt Freezers—  
Send for Bulletins**

Bulletins are available on all Vogt Instant Freezers describing in detail the advantages which have made them the standards for the industry. Send for your copy today and discuss Vogt freezers with your Cherry-Burrell representative.

### CHERRY-BURRELL CORPORATION

General Sales and Executive Office:

427 W. Randolph Street, Chicago 6, Ill

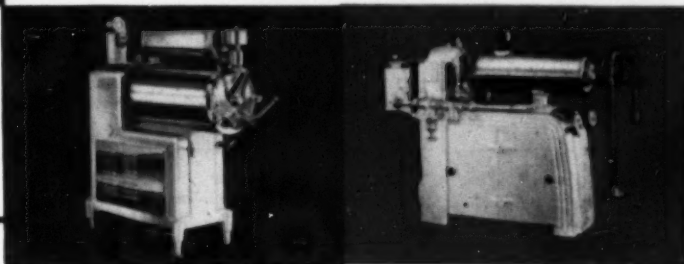
Milk and Food Plant Equipment and Supplies  
FACTORIES, WAREHOUSES, BRANCHES, OFFICES OR DISTRIBUTORS  
AT YOUR SERVICE IN 56 CITIES



*trendmaker in a great industry*

Now is the time to do something about too high production costs, and limited freezer capacity or erratic operation. One or more Vogt Freezers can help you do away with these costly problems. Remember the Vogt line is a full line—with a freezer for every continuous freezing application.

Get ready now to sell "Vogt Frozen" ice cream—the ice cream with the smoother texture, firm body and uniform weight that holds—and gains—more customers.



**The Duo-Dash Batch Freezer.** Fast freezing. Patented whipping control. Rated at 40 quarts—drum capacity 57.2 quarts.

**Famous Commander Vogt Freezers** with capacities from 40 to 300 gallons per hour.

Cherry-Burrell Corporation  
Dept. 120, 427 West Randolph Street  
Chicago 6, Illinois

Send Bulletins as indicated. ( ) Vogt "Star" Freezers

( ) Vogt Commander Freezers.

( ) Duo-Dash Freezer

( ) Cherry-Burrell Fruit Feeders

Name .....

Firm Name .....

Address .....

City .....

State .....



*For smoother ice cream ~ and steadier sales ~ speedily,  
use Duo-Lizer, the combination stabilizer and emulsifier*

**Know the short cut** to making smoother-textured, firmer-bodied ice cream that customers will come back for again and again?

It's Duo-Lizer, the combination stabilizer and emulsifier. And no wonder. Just look what happens when you add Duo-Lizer to your ice cream mix:

*Stabilization takes place immediately!* Fat globules become evenly dispersed throughout the mix. And, at the same time, the butterfat is emulsified!

As fast as Duo-Lizer works, though,

it has no bad effects. Whether your mix is made with powdered whole milk, frozen cream or butter, there is *no* separation of the butterfat from the other milk solids.

So the body of your mix develops in the pasteurizer, *not* on the cooling coils or in the holding vat. And this greatly cuts freezing and whipping time.

*Before you know it*, your ice cream is made! Not ordinary ice cream, but ice cream that maintains *true evenness of texture and a firmer body!* And you know

how that cuts dipping losses not only in your freezer, but in the dealer's cabinet as well.

So cash in on your fresh fruit and ice cream flavors. Let Duo-Lizer make you smoother ice cream—and steadier sales—speedily!

**FREE Trial Production Run.** You can arrange for our sales technician to conduct a trial production run in your plant—at no cost to you.

Simply write or telephone to Whitson Products today.

# DUO-LIZER

*Stabilizes and Emulsifies ice cream!*

Made by  
Whitson Products

DIVISION OF THE BORDEN COMPANY  
350 Madison Avenue, New York 17, N. Y.

# NEW!

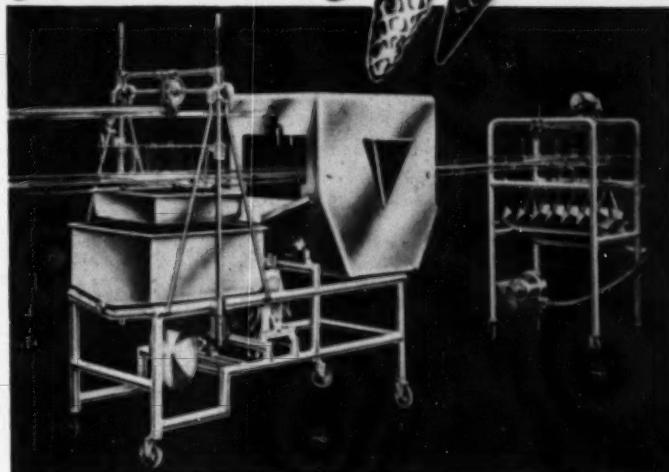
## Sensational



## All-Automatic DRUMSTICK EQUIPMENT

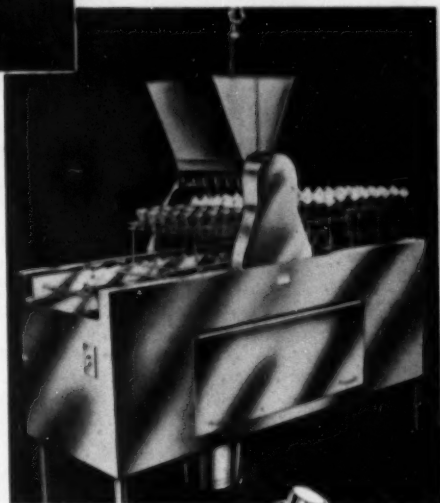
Up To  
**1,080 DOZ.**  
(12,960 DRUMSTICKS)  
**PER HOUR**

Ice Cream Manufacturers have long recognized Frozen Drumsticks as "the" ice cream confection that has everything. Now, at long last... a new, completely automatic machine that eliminates all problems encountered in the past.



### AT LAST... AUTOMATIC EQUIPMENT FOR MAKING "DRUMSTICKS" AND "MR. BIG"

- **EFFICIENT:** More than doubles your production with half the labor. High Speed—Low Cost!
- **CLEAN:** All-Automatic, fills the cone, chocolate dips, covers with nuts... and bags.
- **UNIFORM:** Every Drumstick alike... no waste.
- **NO CAPITAL INVESTMENT:** Installed by Drumstick, Inc., on a loan basis, costing you less than actual ownership.
- **DELIVERY:** As rapid as possible, in order of confirmed lease contracts.



WRITE, WIRE OR PHONE  
FORT WORTH FORTUNE 2932

## DRUMSTICK, INC.

P. O. BOX 1542

FORT WORTH, TEXAS

"AMERICA'S FINEST ICE CREAM CONFECTIONS"



**In Production!**



**In Sales!**

*Your Best Bet is*

## **NA-PE-CO**

**The All-Purpose Emulsifier for  
Ice Cream and Low Fat Mixes**

NA-PE-CO Improves Body . . . Texture . . . Taste. Through improved emulsification, Na-Pe-Co in conjunction with any stabilizer . . . provides your finished product with creamy smoothness despite varying temperatures and heat shock. Ice cream made with Na-Pe-Co melts down evenly . . . retains its velvety smooth texture and creamy taste.

NA-PE-CO Reduces Whipping Time. By improving emulsification . . . Na-Pe-Co reduces whipping time, yet permits more closely controlled over-run.

NA-PE-CO Produces Dry Ice Cream. Na-Pe-Co makes it possible for the mix to incorporate and retain air at lower freezing temperatures, resulting in a firmer bodied, drier ice cream. It is this fine texture and firm body that enhances the dipping quality of bulk ice cream.

NA-PE-CO Is Easy to Use . . . Blends With Any Formula. Na-Pe-Co has been scientifically blended and processed . . . is 97% solids. It is easy to handle . . . entirely soluble.

*National*



*Company*

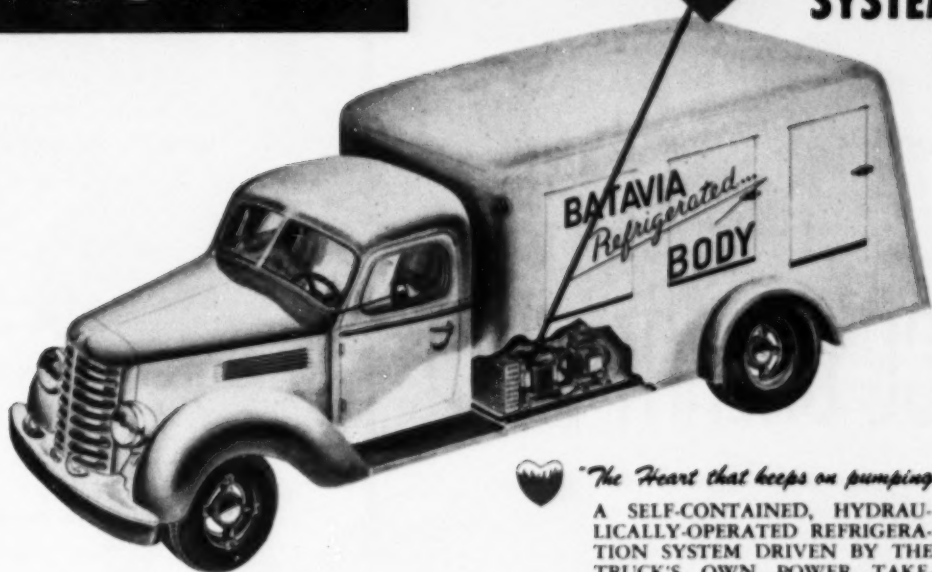
2656 W. CULLERTON ST.

CHICAGO 8, ILLINOIS

**You Will Make a Better Product When You Use a *National* Stabilizer or Emulsifier**

# BIGGER PROFITS

*from smaller chassis*  
*with the new . . .*  
**HYDRAULIC REFRIGERATION  
SYSTEM**



*"The Heart that keeps on pumping"*

A SELF-CONTAINED, HYDRAULICALLY-OPERATED REFRIGERATION SYSTEM DRIVEN BY THE TRUCK'S OWN POWER TAKE-OFF!

No greater economy can be offered in refrigerated delivery than this new system's outstanding weight reduction. Here lightweight hydraulic operation saves 1,000 pounds in plate weight alone on the average body! When used in a new Batavia Aluminum Body the weight saved will exceed 3,000 pounds. Consider the saving — in smaller initial chassis investment, smaller chassis to carry the load, lower license fees, lower tire costs, and lower, much lower, maintenance costs.

## **BETTER REFRIGERATION**

This system allows for constant, controlled temperatures generated every minute of every mile, wholly independent of auxiliary power plants. Real payload insurance!

## **NO CHASSIS ALTERATIONS**

Extra saving is gained by eliminating the need for chassis alterations. With this new system, it's a single-unit purchase — body and refrigeration unit installed at one time!

## *Write*

For further details, send for free, informative folder on "Hydraulic Refrigeration."

## **BATAVIA BODY COMPANY**

BATAVIA, ILLINOIS



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## ICE CREAM FIELD

VOL. 55

*April*

NO. 4



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**Introducing...**



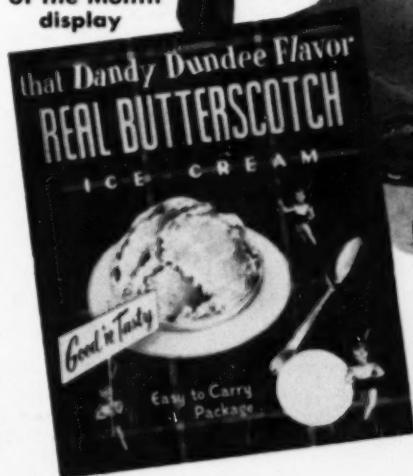
**Good 'n Tasty**  
the **INTERSTATE CREAMERY** Ice Cream mix-en

**all set to do a job selling  
fresh ice cream for you...**

with newly created sales promotional  
helps purposely planned to promote  
**GREATER PROFITS for YOU!**

**E**ACH month the Good 'N Tasty mix-en will bring you new, catchy feature posters selling your wholesome, good-to-eat taste-treats. Good 'N Tasty goodness will be backed with colorful eye-catching counter cards and displays to help your customers recognize the Good 'N Tasty mix-en as the sign of quality ice cream.

**Taste-Treat  
of the Month  
display**



Look for the  
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**TRADEMARK**  
It's YOUR sign of  
Quality Ice Cream



**If you are not handling Good 'N Tasty now, get in  
on the Profit Promotion—WRITE NOW!**

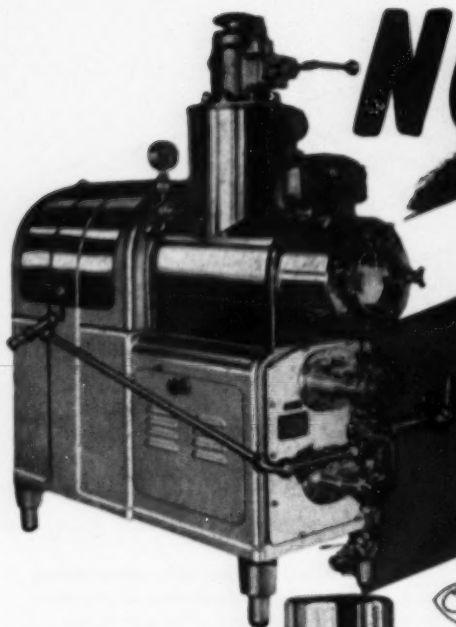
**INTERSTATE CREAMERY INC.**

New Castle, Pennsylvania

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Makers of Good 'N Tasty . . . the finest ice  
cream mixes in the world . . . or anywhere else!

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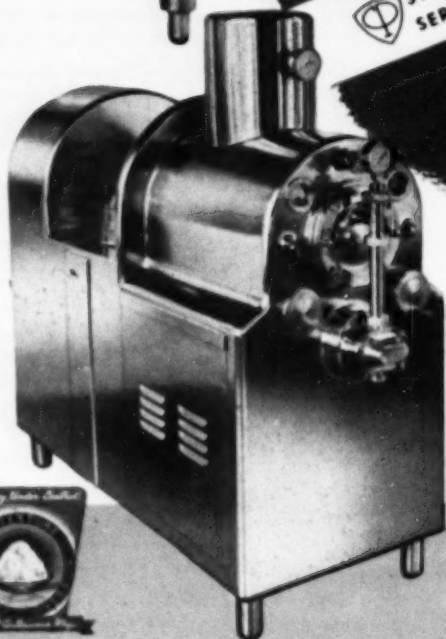


**SERIES 50**

# 2

## GREAT CONTINUOUS FREEZERS

**STAINLESS  
SERIES**



*Both*


with either Square or new  
**Series 50 Round Dasher**

- Slow-Speed action of CP Dashers produces desired stiffness and smooth meltdown—without over-whipping.

*Both*

with CP "Level-Edge" Stainless  
**Steel Blades—Specially Hardened**

- New wider blades permit accurate alignment for better scraping—higher refrigeration efficiency—firm bodied ice cream.
- Specially hardened blades require less maintenance—give more uniform results—cut costs and improve product quality.

**7 outstanding advantages  
make  Continuous  
Freezers your profitable choice**

- **Superior Product Quality**—through smoother texture and firmer body.
- **Flexible operating range**—handles a wide variety of mixes, sherbets or ices.
- **Accessible Controls**—all indicators and valves conveniently centralized for easy operation.

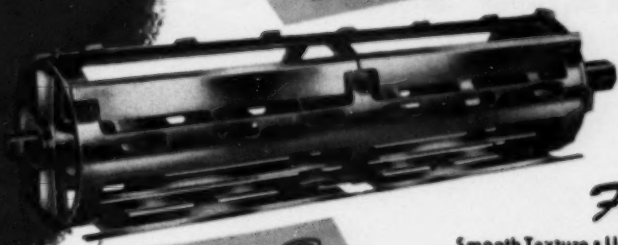
- **Ample Refrigeration**—for steady, dependable performance.
- **Complete Sanitation**—CP Freezers meet the most severe sanitary requirements . . . with all surfaces easy to clean.

# YOUR CHOICE!

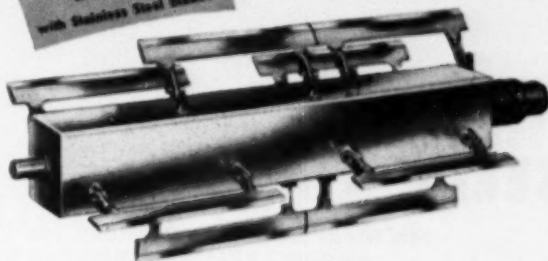
2

GREAT  
DASHERS

**NEW**  **SERIES 50**  
**ROUND REACTION DASHER**  
with Stainless Steel Blades



**UNIQUE**  **SQUARE**  
**DASHER**  
with Stainless Steel Blades



Now, you can have just the right CP Continuous Freezer with the dasher to meet your particular production requirements.

Whether you choose the new CP Series 50 Freezer or the deluxe CP Stainless Series Freezer, you'll get an outstanding value in performance and quality. Both styles of machines can now be equipped with either the new CP Series 50 Round Reaction Dasher or the unique CP Square Dasher. Ask your CP representative for complete information on these great Continuous Freezers that can help you to gain greater profits!

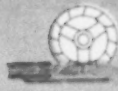
*For—*  
Smooth Texture • Uniformity  
Best for Controlling overrun  
where wide range of products is  
handled • Economical to maintain

*For—* Extra stiff, dry ice cream or  
products of low drawing tem-  
perature • Minimizes power require-  
ments • Simplifies cleaning •

With the Series 50 Round Reaction Dasher,  
**CP's Controlled Whipping Provides the Ultimate in Flexibility**



CP Dasher frame is power driven, the inside reaction beater is propelled by the mix — at speeds variable with the stiffness of the ice cream.



The mix propels the CP beater as water propels a mill wheel.

Merely varying the drawing temperature of a CP Continuous Freezer with Series 50 Reaction Dasher, can give you the ice cream texture desired—from open to ultra-smooth. Stiffness of the ice cream determines the rotating speed of the CP beater. The stiffer the ice cream, the faster the rotation . . . and greater speed produces greater smoothness. This controlled whipping is completely automatic—the CP Continuous Way.

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THE CREAMERY PACKAGE MFG. COMPANY, LTD., Avery House, Clerkenwell Green, London, England

# Here's the Big Popsicle SALES PUNCH



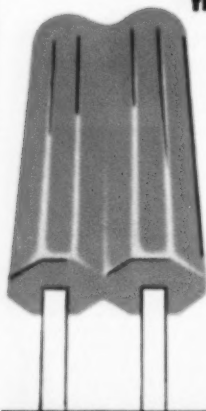
that will have 'em  
**SEEIN' STARS!**

SEE! HEAR! SELL! with the NATION'S TOP ENTERTAINERS on  
AMERICA'S GREATEST SUMMERTIME TELEVISION SHOW  
the "POPSICLE" PARADE of STARS

STARTING MAY 15TH  
COAST-TO-COAST over the  
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WHEREVER THERE IS TELEVISION!

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EXCITING NEWSPAPER ADS  
together with  
OTHER POWERFUL PROMOTION AIDS



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Creamsicle® Ice Cream®

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## YOU WILL SELL MORE ICE CREAM!

By helping your retail outlets sell more bulk ice cream—you will do a bigger volume!

Ice cream manufacturers who merchandise with the Helmco-Lacy Fountainette are proving this by reporting tremendously increased ice cream sales to former "dry stop" accounts.

It stands to reason—a Helmco-Lacy Fountainette will turn any low gallonage stop—candy store, drive-in or refreshment stand—into a fountain of profitable sales. It's been proved a great volume builder by ice cream manufacturer from coast to coast.

At only \$99.50 retail, the H-L Fountainette which turns every standard freezer cabinet into a syrup and flavor dispensing fountain, is your best merchandising aid... and it pays for itself out of increased volume.

Make this coming season the greatest yet for ice cream profit—do what ice cream manufacturers all over the country are doing—merchandise with the H-L Fountainette—write now for details and your cost.

*Now celebrating 25 years of service to the fountain industry.*



DOUBLE WARMERS



HOT CUPS



FUDGE WARMERS



SERVICE STATION

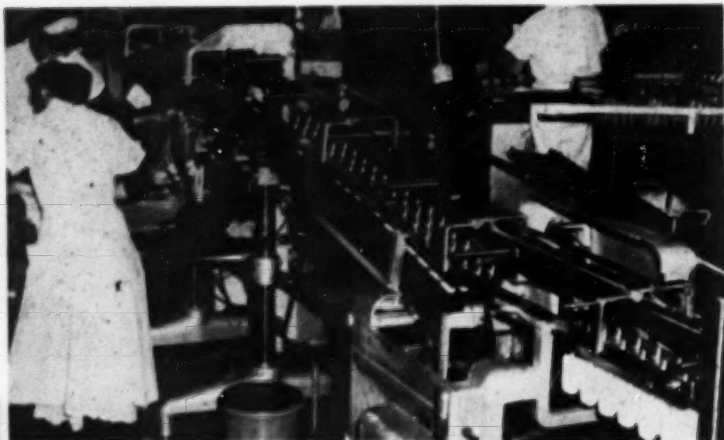
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# Saving Labor Pays

**S**MITH Bros. Ice Cream, Inc., of New York City, is celebrating its thirty-fifth year of highly-successful business activity in 1950. The fact that this ice cream manufacturer has kept pace with modern developments in plant equipment and methods is largely responsible for the company's favorable position as one of New York's leading independent producers of ice cream.

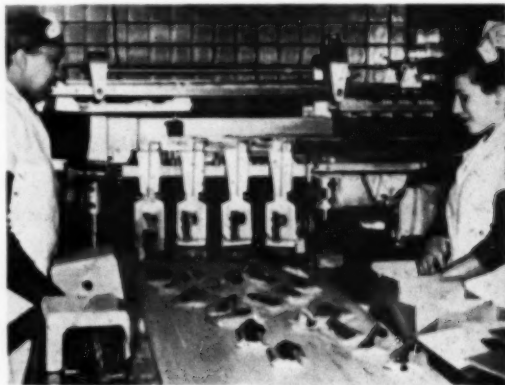
Recognizing the importance of efficient plant operation, the executives of this firm are always on the lookout for machinery and/or equipment that will add speed and accuracy to the production end of the business, and for labor-saving devices that invariably lead to greater profits.

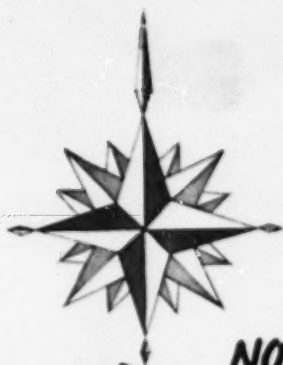
In line with this forward-looking policy, the Smith Bros. organization has recently added several up-to-date instruments which have scored marked improvements in the production system. Two new storage tanks, with a capacity of 4,000 gallons each, have been installed. These tanks, manufactured by the Chicago Stainless Equipment Corporation of Chicago, enable the ice cream firm to receive fluid milk in tank trucks, instead of in cans, with resultant savings in time and space. Another recently-installed device is the Anderson Twin-Sticker, which feeds forty-eight sticks to twin stickholders, and is driven by compressed air.

One of the most noteworthy improvements in plant equipment achieved in recent months by the Smith Bros. firm can be found in the novelty department. This is the automatic coating and bagging machine developed by Ice Cream Novelties, Inc., of New York City, which produces chocolate-coated ice cream on-a-stick. Reports that six persons could turn out 1,440 dozen novelties per hour, and that two people could produce 450 dozen every sixty minutes were confirmed at the Smith Bros. plant. In addition, production foreman Angelo Parrinello said that the new machine had resulted in a saving of five or six persons from the assembly line.

Virtually the entire coating and bagging operation is illustrated in the photograph at the top of this page. In the lower right corner, the ice cream bars are seen as they leave the chill tunnel. The coating process is shown toward the center of the photograph. When the bars have been coated, they move up an incline to facilitate draining. The stickholders are then automatically picked up, and released, and the novelties are dropped about 1/4-inch onto guide rails, where the motion of the conveyor moves them along until they drop one by one into the chute that leads into the bagging phase of the operation. Once encased in the glassine bags, the novelties are packed in boxes and transported to the hardening room. (A close-up of the bagging process can be seen below.)

What makes this equipment especially appreciated in the ice cream plant, according to Mr. Parrinello, is the ease with which it may be cleaned. The entire apparatus may be stripped for sanitizing in a matter of minutes, without the use of tools, he said.





**NORTH - SOUTH  
EAST OR WEST...**

**Hackney is there!**

Somewhere near you there's a Hackney refrigerator body. They're everywhere, because they're the choice of so many successful operators. We'll be happy to give you full particulars on Hackney bodies for your operations.



HACKNEY MODEL R-544  
680 GALLON CAPACITY

**HACKNEY BROS. BODY CO.**

WILSON, N. C.

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SINCE 1854



## **COSTA PLANT: FUNCTION AND BEAUTY**

*topic of the month*

**J**UST how important is the actual plant location to your business? Many ice cream men believe that the production facilities may be anywhere in a community so long as it is within easy driving distance of its customers. On the other hand there are manufacturers who are firmly convinced that the plant itself should be a thing of beauty, both exterior and interior, serving as a constant reminder to the public that here is where that wonderful clean product—ice cream—is made.

In the latter category is the Costa Ice Cream Company of Woodbridge, New Jersey. A few years ago, a plant streamlined and beautiful in appearance was constructed at the intersection of two highly important traffic arteries. It is estimated that each hour over 1,000 autos and trucks pass the doors of this strategically located northern New Jersey company. Autos pouring along the highways between New York, Newark and such points as Philadelphia, Atlantic City and points South must see this modern structure that is light and clean in the brilliant daylight and floodlighted in the evening hours.

The first impression entering the main door is of a smart, business-like reception room and offices. You may be greeted by President of the company Gregory Costa, Sr., or more likely by one of his sons, Gregory, Jr., who is Vice-President in charge of production or Joseph Costa, who is Secretary-Treasurer. They will take you with quiet pride

MODERN MACHINERY and methods—as exemplified in one-shot cake roll operation (see photo, left), particularly in packaging (photo, right), and in huge novelty tank (photo, below) are Costa plant stand-bys.

into the plant which stretches out before you as one big room with daylight streaming in from all sides.

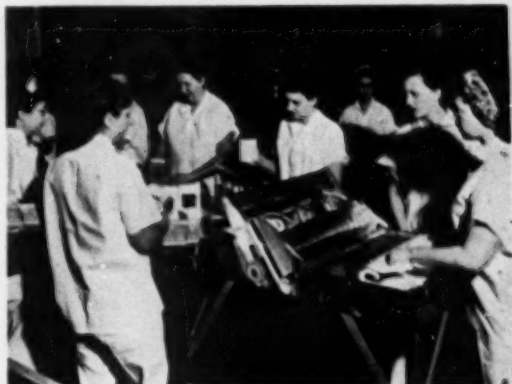
The plant is laid out in orderly fashion from the mix department through the long line of modern freezers into the package filling and novelty sections without wasted space or encumbrances. All equipment is of latest design.

On the winter day that ICE CREAM FIELD dropped in, the plant production got underway at 8 A.M. It developed that this was the day that the popular Newly Weds Ice Cream 'N Cake Roll was scheduled for production and packaging. Within seven hours, 2500 cakes were filled, wrapped, cut six to a roll and individually packaged for a total of 15,000 take-home packages. These were destined to be retailed at thirty-nine cents per packaged cake roll among dealers within a thirty-five mile radius of the plant.

On this particular day in March, the cake rolls were filled with vanilla ice cream made from the same mix as used in the regular bulk and packaged line. In the previous month, the firm had featured cherry ice cream in its cake roll. Realizing the value of flavor variety, the Costa executives are planning to feature a strawberry ice cream—vanilla cake roll for the month of May.

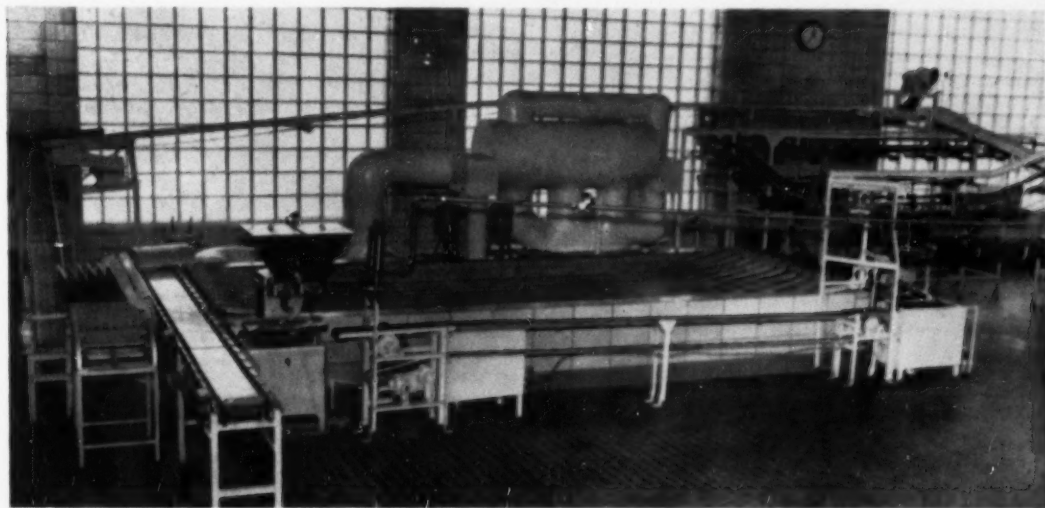
The experience of this firm, which has pioneered the cake roll in many eastern states, has indicated the value of making available to consumers a variety of five or six flavor combinations in a cake roll. Costa has found consumer enthusiasm for not only the year round vanilla ice cream-chocolate cake roll, but also for novelties featuring the cake with banana, peach, cherry and a few other ice cream flavors.

It was noted that the ice cream for the cake rolls was piped directly from a 300 gallon continuous Creamery Package freezer. Through a special nozzle arrangement,



the ice cream was spread on the cake sheets, quickly rolled and wrapped in wax paper. In one short stroke of the new style four inch soft roll stainless steel cutting machine, the cake roll is cut into six equal portions. A group of girls working on both sides of a table were receiving the new type of automatic, fast set-up, frostproof cellophane window packages and dropping into them the finished cake roll. The box, unusually attractive, was designed especially for Costa's trademark and display. The packages, upon being closed, were on their way into the hardening room within a matter of seconds from the time the ice cream left the freezer. Average of about 2,000 packages was being handled per hour. The key to the operation appeared to be the automatic box setup and the soft ice cream cake roll cutter, making this a straight one-shot operation.

During the day the Costa plant was also in production through highspeed filling operations on cups, 1/2-gallon cans and 2 1/2-gallon bulk paper cans. Most impressive was the smooth running plant operation and efficiency. The spotless floors and tile walls rounded out the picture of modern production.



# Equipment and Supplies

BY DON S. LIGHTNER

*General Sales Manager  
The Creamery Package Manufacturing Company*

**F**OR A number of years, your association has called upon some spokesman of the Dairy Industries Supply Association to give you a capsule account of the situation in dairy industrial equipment and supplies. I would like, therefore, to outline today's supply and equipment circumstances.

I assume that facts like these are of interest to you because, of course, none of us, in this country or anywhere else, stands alone. You do not have a good ice cream business if a sufficient number of wage earners are out of jobs. If your business falls off, we cannot sell you equipment and supplies, and then we do not order steel or rubber or glass or sugar or chemicals or vanilla beans or any one of the hundreds of other materials which the supplier and equippier uses in preparing his products for you. Then the industries that provide these materials feel the pinch.

And the chain works the other way, too. If striking steel workers close down the mills, the dairy machinery or equipment manufacturer's production must decline and he becomes slower in his deliveries to you and that may hamper you in serving your outlets.

In a broad sense I think I can fairly say, then, that you as dairy processors and the firms in DISA can expect to have ups and downs very much in common.

Men from our companies who cover your territory report that you, like almost every other dairy processor in the

country, have been buying on a very careful basis. You are keeping your inventories down. Well, don't think you have a monopoly on this. We in the equipment and supply business have been subjected to exactly the same economic pressures, and we too have had to limit our inventories—of raw materials and finished products and parts for replacement. We are not, please understand, on a hand-to-mouth operating basis. But costs of production and marketing are up and volume of demand, as against a year ago, is down. So we cannot, for example, stock heavy supplies of stainless steel or tie up capital in large quantities of valuable finished machinery produced against non-existent orders. Don't count, please, on assured prompt deliveries.

Before the war, as you remember, health departments generally were becoming stricter about their sanitary requirements. Then during the war this trend toward more advanced sanitary codes and more rigorous performance was halted. Now the trend is very noticeably being resumed. It is undoubtedly going to be continued, equippers and suppliers believe.

Equippers and suppliers have long favored orderly procedures in making sanitation advances effective. As you know, there has been for about fifteen years a growing cooperation between the sanitarians, the users of dairy equipment and the manufacturers of it, in working toward bringing about uniformity of sanitary regulations. Your processing groups have taken an active part in this through the Dairy Industry Committee, and there have been or are being evolved by maker, user and regulator a number of voluntary sets of processing equipment standards. These are known as "3 A Standards." These more and more

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*This article is based on a talk given during the recent meeting of the Southern Association of Ice Cream Manufacturers, held in Biloxi, Mississippi. Mr. Lightner spoke as representative of Dairy Industries Supply Association.*

---

Solid Satisfaction  
Starts Here!



## DREW FLEX-A-FREEZE

*The most flexible* **STABILIZER-EMULSIFIER** *combination*

DREW FLEX-A-FREEZE not only disperses all fat globules in the mix . . . it also provides immediate, perfect stabilization from both fat and water phase . . . produces mix with the viscosity of rich cream . . . resists heat shock and keeps ice cream stable in dealers' cabinets. It provides the widest effective working ranges!

The exceptional flexibility of FLEX-A-FREEZE increases your efficiency . . . means *consistent uniformity!* It simplifies mix-making . . . eliminates processing difficulties! It gives your ice cream a smooth, firm, chewy body . . . gives consistently dry ice cream at the freezer! Yes, DREW FLEX-A-FREEZE does all these things and more because it is nature's finest emulsifier-stabilizer!

*For further information, send for Laboratory Report 35 or see the Drew Man today. Ask about Drew-Tex Stabilizer . . . Drew-Mulse Emulsifier . . . Dri-Freeze Drying and Whipping Agent.*



DAIRY AND SPECIAL PRODUCTS DIVISION  
**E. F. DREW & CO., Inc.**  
15 East 26th St., New York 10, N. Y.



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ICE CREAM FIELD, April 1950

We say it  
depends on  
where you  
spend it!

If you buy from Anheuser-Busch, for example, the Scotchman in you is bound to be delighted with the bonny new Anheuser-Busch Open-Top model shown below. It has everything that a merchandising cabinet could possibly offer: large volume, eye-stopping beauty, easy-to-see-and-reach display of your package, dependable temperature control, versatility for special displays and promotions.

For instance: this cabinet has a length of only 51 $\frac{1}{8}$  inches, a width of 29 $\frac{3}{4}$  inches and an over-all height of 52 inches; yet,

it has a useable space of 10.8 cu. ft.! This means greater capacity per sq. ft. of floor space plus a savings due to fewer deliveries.

For additional information on the Open-Top or other models, write today to the Refrigerated Cabinet Division, Anheuser-Busch, Inc., St. Louis, Missouri.

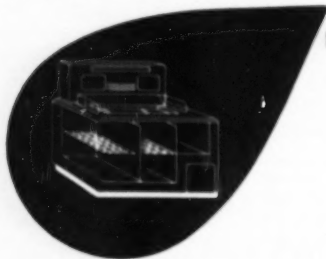


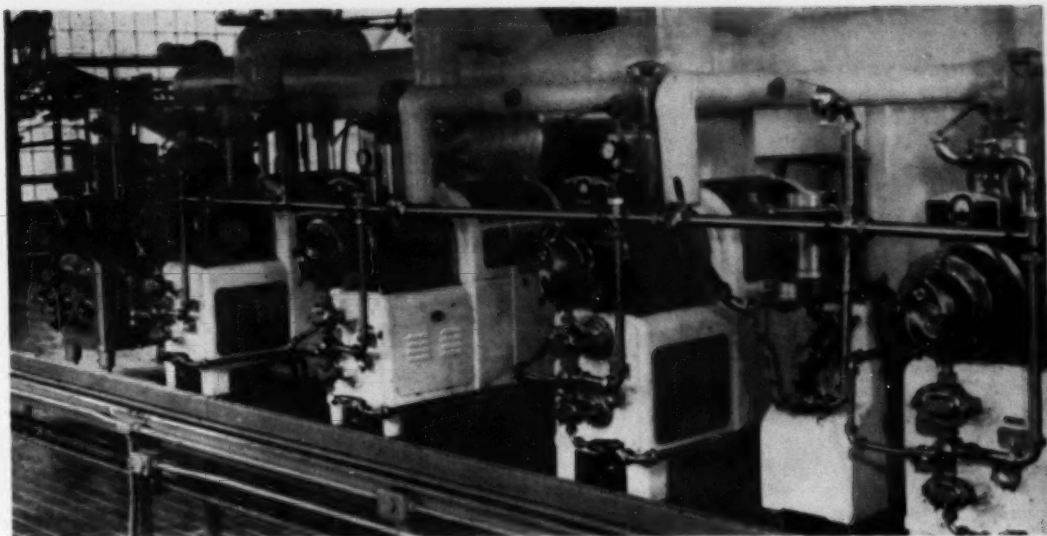
how much does *your* dollar buy?



**ANHEUSER-BUSCH, INC.**

Refrigerated Cabinet Division... St. Louis, Mo.





MODERN EQUIPMENT is used throughout the up-to-date ice cream plant of the Costa Ice Cream Company, of Woodbridge, New Jersey. This progressive firm is proud of its

battery of Creamery Package continuous freezers (pictured here), which represents one of the most vital phases of its production operation. Other photographs and details

which illustrate Costa's immaculate plant can be found on Pages 26 and 27, where a detailed report on a recent Ice Cream Field trip to Costa's is published.

widely are being accepted by health officers across the nation and thus by just that much reduce the confusing and costly contradictions in the requirements set up under different health jurisdictions.

This year new sanitary standards, I can report to you, have been worked out for homogenizers, and consideration is being given to H.T.S.T. pasteurizer timing standards. Exploratory surveys have been made relative to point-of-sale equipment in your part of the industry, and although nothing definite has been arrived at, it would pay you to keep an eye on this particular phase of sanitation in your dealers' premises. Ice cream storage and dispensing practices have been under intermittent criticism by health officers, as you know, and out of this has come a number of conferences of ice cream industry and supply and equipment technicians. Nothing has been arrived at on an industry-wide basis, but many men and companies are at work; and a standby mechanism for industry-wide consideration of problems has been brought into existence, also.

The suppliers and equippers suggest that you do your business planning from now on with a recognition that in all phases of dairy industrial activity sanitation is going to play an increasingly important part. The job of sanitary safeguarding must be done, within the industry itself, and with as much economy as possible. You and your supplier and equipper must work closely together to develop and get into use whatever methods can be proven to be most efficient. We see a steady achieving of improved sanitation measures on the farm, in the plant and in the distribution outlets as a trend in the dairy industries which is here and will stay for many years.

I have made some rather long digressions, perhaps, but I come back now to a few words about what is new or likely to be new in equipment and supplies. I have tried to get together a comprehensive survey but, just as Ford isn't telling Chrysler what he's putting into his 1951 model, so I can't report to you just what you'll see at the 1950 Dairy Industries Exposition in Atlantic City next October. It isn't that we don't trust you. We don't trust each other! This is a sure sign of a healthily competitive, independent supply industry!

### Trends

I am able, after making a canvass, to outline some trends briefly.

1. In relation to *pasteurization*, the trend seems to continue toward more use of H.T.S.T.—high temperature short time pasteurization. This modern version of what used to be called the "flash" method is being applied not only to big plants but to small.

2. *Delivery equipment*, like all automotive products, is still further being improved. You are increasingly aware, I am told by my truck friends, of the stimulus which this provides to the milk producer and the new economies it affords the processor in his milk and cream procurement and also the extension which is given to your opportunities for distribution. Further careful study of all your trucking operations may well repay you today in the light of this.

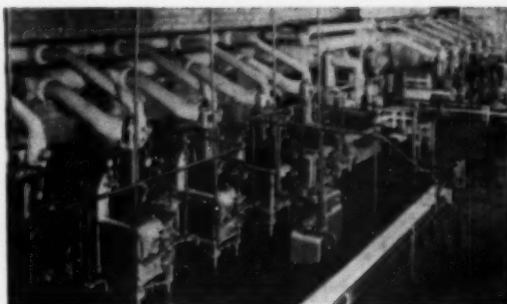
3. *Containers* are tied up with the whole new movement of making all products readily available to the consumer,

and you will see innovations at the next Show, or sooner, perhaps—since a sample container is much easier to carry around than a mixing vat—on your own purchasing agent's desk. One trend noted in your territory has been an accelerated installation of paper-bottling equipment. Much paper-bottled milk goes into the new self-service installations which have increased the housewife's general shopping ease; and throughout the country, I am told, these installations (many of them with open deep-freeze bins) have stepped up the consumption of ice cream very promisingly.

4. *Vending Machines.* It was one of your northern fellow ice cream manufacturers, Irving Reynolds, newly elected Vice President of the Dairy Industries Society, International, who recently—with a smile—told some DISA people that perhaps the dairy industries should take a cue from the bottlers, because one Southern cola company, whose name I don't need to mention, had installed a vending machine for its brown beverage in the lobby of his church! Jokes aside, there is much work being done today in developing new mechanical dispensers for milk and ice cream and at the next Exposition the results will be shown for you to see.

5. *Cans.* Since most farm-to-plant cans are still tinned steel, there will continue to be some delays in deliveries here on replacements and in retinning, since tin has not yet caught up with demand since the wartime shortage.

6. *Sanitation Products.* Here chemistry is continuously



PHILADELPHIA DAIRY Products Company plant in the City of Brotherly Love banks heavily on its outstanding array of Creamery Package continuous freezers (pictured above).

at work, and improvement in detergents is constantly being sought by their manufacturers. The dairy industries, by the way, have been the pilot field for much modern detergent development. The new "wetting agents" illustrate this: first they go to work in your plants, but the next thing your wife is using them in the kitchen under a fancy name! There is much activity in industrial chemical science, in your interest, just now.

7. *Washers.* Nothing radically new here so far, although various companies are trying to lick the problem of how to give a huge can the same treatment that glass gets in the very efficient soaker-type bottle washing installations. Again, anticipation of sanitary requirements is the note which these efforts sound and which you no doubt hear.

8. In instrumentation you will be seeing engineering developed to give reality to the new short time pasteurization-timing 3A standards, as well as other ingenious solutions to ever more complexly recurring problems in controlling and regulating temperatures in your exacting dairy processes.

### Ingredients

9. The availability of ingredients, of course, follows inter-continental special or general tides in supply and demand and trade, and I have not come on anything particularly new or startling. But it takes a real specialist to chart trends in vanillas or chocolate products or fruits. . . or to tell you how next season to capture the Bobby Sox ice cream trade; and my best recommendation to you is to rely on the suppliers you have always familiarly turned to.

10. *Basic Materials.* No spectacular new alloy has appeared to solve all our metal problems. The trend still continues toward stainless steel, with the glass people working on piping and other innovations. Steel makers and equipment technicians have conferred recently about matters of optimum finish, gauge, ductility and conductivity in the steels used in dairy processing machines.

In what I am now about to say I speak strictly as an

(Continued on page 44)

**VELVA-CREME**  
The Right Combination!

An Eastern Dairy College writes:  
"We made a mix using your VELVA-CREME and MIXIFIER and the ice cream was very good. Whipping time was reduced and the ice cream had a smooth texture."

**GERMANTOWN Manufacturing Co.**  
5100 LANCASTER AVE., PHILA. 31, PENNA.

The BIG 3 in Ice Cream Flavors is now a

# BIG 4

## Butter Brickle\*

CANDY ICE CREAM FLAVORING

### Wins High Sales Rating as Standard Flavor in Area after Area!

TRY THIS PROVED GALLONAGE BUILDER...FOR GREATER PROFITS...AT OUR RISK

A recent survey disclosed that in Omaha, BUTTER BRICKLE was the fourth Ice Cream flavor (following vanilla, chocolate, and strawberry).

In Des Moines, one manufacturer reported BUTTER BRICKLE as the second flavor—two reported it as the third flavor, and one reported it as fourth flavor.

In still another area a recap showed BUTTER BRICKLE in third place flavorwise, and 12% of volume—only 3% under the number two seller. More and more such

reports are registered every week.

Learn for yourself at our risk, the tremendous gallonage-building qualities of BUTTER BRICKLE. It's the flavor steadily winning top places—not as a special feature, but as a Standard Flavor!

The Coupon below invites you to order the 10-pound can of BUTTER BRICKLE, enough to make a trial 30 can of finished product—a sufficient quantity to gallons of consumer acceptance in your market. If not test for consumer acceptance in your market. If not entirely satisfied with your trial run, the money you have paid for BUTTER BRICKLE will be cheerfully refunded. Clip, sign and mail Coupon today.

\*Butter Brickle is the exclusive Trade Mark of Fenn Bros., Inc. ®



## Fenn's Butter Brickle\*

GROUND

CANDY ICE CREAM FLAVORING

"MADE BY ICE CREAM MAKERS FOR ICE CREAM MAKERS"

**MAIL COUPON  
FOR 10 LBS.—  
ENOUGH FOR  
30 GALLON  
TRIAL RUN**

FENN BROS., INC., SIOUX FALLS, SOUTH DAKOTA

Please ship one 10-pound can of FENN'S Ground BUTTER BRICKLE Candy Ice Cream Flavoring on money back guarantee. Price 53¢ per pound, F.O.B. Sioux Falls, S. D.

FIRM \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_

ZONE \_\_\_\_\_

STATE \_\_\_\_\_

BY \_\_\_\_\_

(Title)

NOTE: Regular 27-pound cans of BUTTER BRICKLE sell for 48¢ per pound, F.O.B. Sioux Falls. On orders for 4 cans (108 lbs.) or more, freight will be prepaid to any point in the U.S.

**SATISFACTION...OR MONEY BACK**

C-4

# Production Problems

BY G. M. BRACKE

Vice President, Rieck-McJunkin Dairy Co.  
Pittsburgh, Pennsylvania

**T**O be sure, for one to try to cover this subject in any given time is next to impossible. New, brand new problems in the plant production operations arise every day, every week; in fact they keep coming up all the time and so it goes on indefinitely. The attempt to find solutions of the problems that arise, is, of course, what makes this business interesting. Each problem becomes a very definite challenge.

I believe the problems of plant production can be classified under two main headings, namely:

1. Quality of Product
2. Plant Operating Efficiency

1. The control of the quality of the product involves the close cooperative effort of the plant operators with that of the laboratory staff.

It goes without saying that the quality of the finished product is, of course, dependent on the quality of the raw materials going into the make-up of the finished ice cream. This means that all dairy ingredients must be up to par in flavor etc., and too, the non-dairy product ingredients must be of excellent quality. Good quality materials with good operation will produce a fine quality finished ice cream.

You, who have just completed this short course in the manufacture of ice cream have certainly learned what the basic problems are in the testing of raw materials and of the finished product. You have also learned what the basic problems are in making ice cream mix and in freezing the mix into ice cream. You too, have acquired the very latest information on cleaners and detergents used in the very important operation of cleaning all ice cream plant equipment. This all important operation of cleaning and steri-

lizing all equipment and the maintenance of good house-keeping throughout the plant is generally reflected in the quality of the finished product.

While the control of the quality of the product with all of its various problems of testing, checking, etc., is number one in my book, commercially, it is also important that efficiency in operations be accomplished. It is important to have an efficient operation as well as a resultant quality product in order that the best possible product can be produced at the lowest possible cost so that it can be made available to the consumer at the lowest possible price.

2. I should therefore like you to consider with me a little more fully the second classification that I have mentioned, "Plant Operation Efficiency."

To me, Plant Operating Efficiency, is the result of the application of manpower effort to operating machines and equipment in some kind of a plant layout. We therefore have:

- a. Labor or manpower problems.
- b. Machinery or equipment problems.
- c. Plant layout problems.

All of these play a major role in our operating efficiency. Our big problem is to continually strive to increase the efficiency of every phase of ice cream production.

How then can better efficiency in our ice cream plants be obtained?

The following are just some essentials in getting the job done:

1. Maintain adequate supervision.
2. Apply real production planning.

(Continued on page 36)



NEEDS FOR HIS PIPE  
NEEDS FOR HIS BOWL --  
BUTTERED PECAN  
ICE CREAM

MADE WITH - -

# Capco

**BUTTERED  
PECANS**

Your customer is king — so treat him royally, use the finest buttered pecans in your mix. Capco pecans are of finest quality. They are carefully examined for your protection— then comes the final rich processing with high score — pure creamery butter.

Build repeat business with this "Royal Treat" . . . delicious buttered pecan ice cream. Orders for Capco buttered pecans are processed daily. Packed in 25 lb. cartons.

Form No. BP2 — 50

Capco full-flavored  
buttered pecans —  
**BUILD SALES**

**THE CHARLES A. PETERSON COMPANY**  
917 CARNEGIE AVENUE • CLEVELAND 15, OHIO



G. M. BRACKE, Vice President of Pittsburgh's Rieck-McJunkin Dairy Company, cites in this article some of the obstacles to smooth plant production that must be hurdled by ice cream manufacturers to assure a profitable operation. The article is based on a talk given during the recent Ice Cream Conference held at Pennsylvania State College.

3. Survey the labor situation in connection with each operation.
4. Study the machine and equipment requirements of each operation.
5. Apply good preventive maintenance to all equipment.
6. Study and revise the plant layout.

1. To maintain adequate supervision, I feel that the number and quality of supervisors is the thing. Sound leadership insures maximum good results. Good bang-up supervisors in the ice cream and dairy processing field are not too numerous these days. There is plenty of opportunity in this business for young men who have the proper qualifications. We should develop a closer relationship with the colleges of agriculture in order that we may council with them, concerning our thinking as to what their teaching should include to qualify their graduates as supervisors in this industry.

I feel there should be developed in the graduate or prospective supervisor:

1. A knowledge of the business.
2. A great willingness to learn and to take orders.
3. There should be developed in them the ability to teach others.
4. They should have patience in teaching others.
5. Such men should have personality.
6. They should have a resourcefulness to meet all kinds of conditions.
7. They should have the ability to think quickly and clearly.
8. They should have systematic organizing ability—and some other qualifications that could be mentioned.

Results that are gained in any operation are primarily due to the efforts of supervision. The leading force to get the job well done is activated by the supervisor. In a large operation where a number of supervisors or foremen are re-

quired, it is through their combined efforts of job planning, production planning, their application of knowledge, tact, and so forth, to the individual operators, that a good efficient operation results.

The training of employees is certainly within the responsibilities of the supervisor or foreman. A new employee should be made acquainted with the business and particularly with the functions of the department to which he is to be assigned. He should be properly introduced to his fellow workers. In short, everything should be done on a personal basis to make him feel as much at home in his new job as possible. This same procedure should be applied to an old employee who is transferred to another department. It is, of course, essential that the employee be taught how to do the job that he has been assigned to. Those procedures should involve detailed explanation of why each move is made and why a machine should work this way or that. He should be taught the right way to do the job as compared with doing it the wrong way. While training employees on the job the supervisor, if he has the right qualifications, will soon learn who his best operators are. All of the employees will not react to the training in a like manner. Therefore, the better operators should be used by the supervisor as lead men or women who, will and can help the rest of the crew to better understand the work as the operation progresses.

Properly trained employees will certainly help to increase efficiency and reduce the total costs of the product.

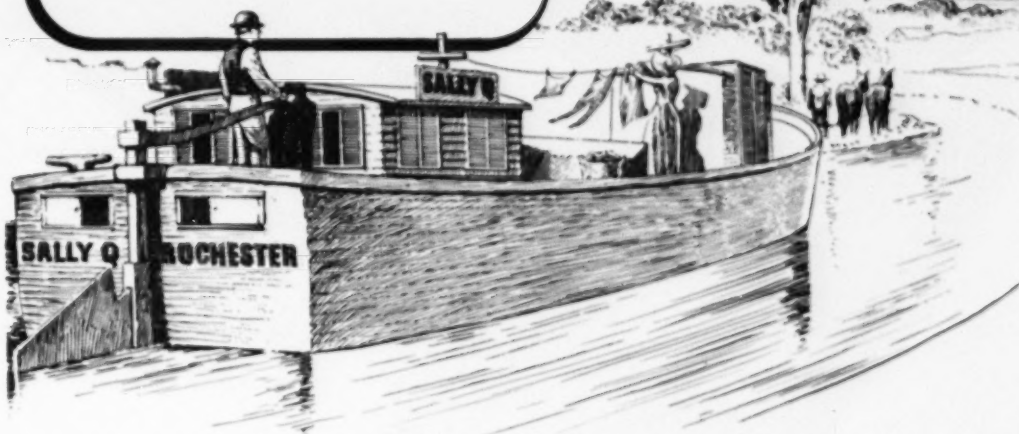
2. The consistent application of production planning and the carrying out of those plans is a daily must to insure maximum efficiency.

What I mean by production planning is to set up in advance the items to be run; the amounts of each, the number of people required on the jobs, and an estimate of the time involved. Some rough estimate of what it to be done should be made, probably a week ahead of time, and a more specific planned setup most certainly should be made a day in advance of the time the operation is to be carried out. The equipment should be assembled in complete readiness and materials should all be made available for the operation by one or two men ordered in a few hours earlier than the starting time of the operation, so that maximum production can be acquired by machines and the larger group of labor throughout their eight hours of operation. The production plan should include the running of the greatest possible volume of a single item. Short runs, therefore, should be avoided if possible. When production runs of some products are too short and the volume output small, consideration should be given to removing them from the schedule, since they become nuisance items and are a source of high total costs.

Too many items in the schedule require too many of

(Continued on page 66)

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EVERYTHING  
BUT THIS...**



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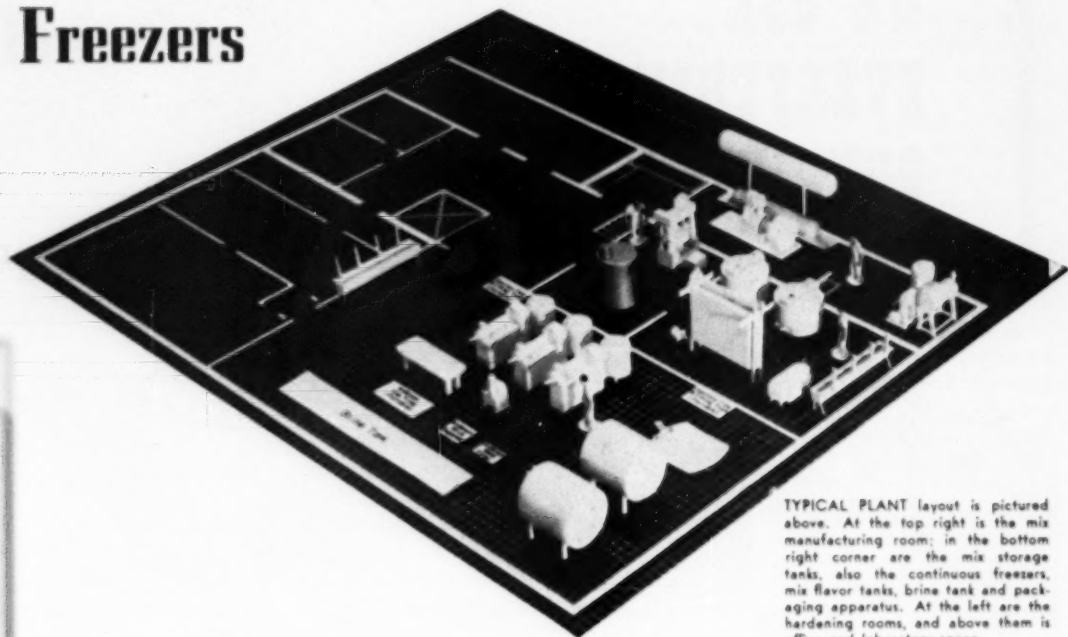
After careful study of routes and schedules, we use either rail or truck, and in case of emergency even the air, to make sure that our Vanilla arrives promptly and efficiently.

We know that no matter how we have worked to supply the one right Vanilla for any customer's product, it's no good to him anywhere else than in his plant. So we get it there on or before the date ordered.

**V**anilla Laboratories, Inc.  
Rochester, N.Y.

PURES  
BLENDS  
CONCENTRATES  
POWDERS

# Continuous Freezers



TYPICAL PLANT layout is pictured above. At the top right is the mix manufacturing room; in the bottom right corner are the mix storage tanks, also the continuous freezers, mix flavor tanks, brine tank and packaging apparatus. At the left are the hardening rooms, and above them is office and laboratory space.

**I**T IS very important that the continuous freezer operator, the man who runs the machine, is impressed with the importance of freezer operation and the part it plays in determining the quality of the finished product. It is the machinery manufacturer's job to give you a freezer that will permit you to make the finest ice cream that can be made from your mix. The one thing the machinery manufacturer cannot give you is a machine that will think for itself. If you supply mix and refrigeration to a continuous freezer, push a button and adjust a few valves, the machine will make ice cream. Of course, that ice cream may be under-frozen or over-frozen and may not be the best ice cream that can be made in that freezer, unless the operator knows the range of quality control in the machine, knows what he wants, and operates the freezer to get that quality.

There is nothing mysterious about continuous freezer operation. There are three steps in changing an ice cream

mix into a semi-frozen ice cream ready for hardening. You must bring mix and air together, then cool and freeze the mix to a consistency or stiffness where it will hold the air and finally whip the air into the mix. Every batch freezer operator is acquainted with these three steps. When a batch freezer operator puts five gallons of mix in a ten gallon or 40 quart freezer, he is performing the first step of bringing mix and air together. The refrigeration is then turned on the freezer and the mix is frozen until it reaches a degree of stiffness where it will hold the air. Most batch freezer operators recognize proper stiffness for whipping by the appearance of a sample drawn from the freezer as it is being frozen. When the sample begins to lose its wet sheen and shows the first signs of dryness, the operator knows that the ice cream is ready to be whipped. He then shuts off the refrigeration and continues whipping until he has the air incorporation, or over-run, desired.

Every batch freezer operator knows that on some days he will have a mix that will freeze and whip easier than on other days. He knows that there are conditions in the plant that can affect his freezer operation, but because he performs these three basic steps, one after the other, in changing mix to ice cream, he automatically adjusts his operation to those varying conditions. No batch freezer operator ever cuts the refrigeration on his freezer until

**BY EARL FORSTER**  
**Cherry-Burrell Corporation**  
**Chicago, Illinois**

**All the true, rich flavor  
of the chocolate bean...  
makes Johnston coating**

*Young America's choice*



**FREE — Sales helps to bring you extra profits!**

Ask your Johnston Representative about proven sales helps to boost your profits. And, remember, when you use Johnston coating, you're using the finest. Real chocolate flavor brings 'em back for more and more!



the mix is frozen to the stiffness desired, nor does he ever stop whipping before he has his overrun.

Basically, the continuous freezer operates the same way, except that the operations are being carried on continuously. Through an arrangement of positive type pumps and an adjustable air valve, mix and air are metered into the freezer system under pressure and at the desired rate of capacity within the range of the freezer as controlled by the operator. As this mix and air travel through the freezing cylinder and heat is removed, the mix becomes partly frozen while it is being continuously whipped by a dasher in the cylinder. The mix as it is metered into the freezing cylinder will not hold air, so there is that period in continuous freezer operation when the mix in the cylinder is merely being cooled down and frozen to the consistency where the air can be whipped in and held by the partially frozen ice cream in the remaining time in the cylinder.

There is no Black Magic or hocus-pocus used in making ice cream in a continuous freezer; it merely performs continuously the same three basic steps that are used in freezing ice cream with a batch freezer. The continuous freezer, therefore, is affected by variations in freezing or whipping qualities of the mix and plant operating conditions as would be the batch freezer, and the freezer operator from day to day or one mix to another must adjust his operation to meet these conditions.

The first requirement for a freezer operator is to know the range of quality control within his freezer and to be able to recognize the quality of the finished product that he desires. The stiffness to which the product is frozen is the best indicator of quality control. Every freezer operator should run a simple test to determine the range of control in his machine. Using vanilla mix from the same vat and running all samples to the same overrun, he should freeze one sample with the freezer operating at the greatest capacity he can get within the range of the freezer drive and draw the ice cream as soft as he can and still handle it in packages. This will be an under-frozen sample. The freezer should then be slowed down to approximately its rated capacity and the ice cream frozen to normal dryness and stiffness. This would be a normally frozen or control sample. A third sample should then be taken with the freezer operating somewhat under rated capacity and with the ice cream being drawn as dry and stiff as possible. This will be an over-worked sample. The freezer should be operated long enough under each set of conditions to assure uniform operation and at least a one pint sample should be taken. Samples when taken from the freezer should be marked and immediately set in the hardening room.

After hardening, the samples should be brought out, the packages removed and the samples allowed to set out until they start melting down. In most cases, considerable dif-

**PROFIT on a stick**

by **RECO**

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**JUNIOR FROZEN STICK CONFECTION PLANT**

10" — SPS 10 CD  
Cap. 1200 to 1400 bars  
per 8 hrs. Shipped  
complete with self-  
contained refrigeration  
unit, defrost tank,  
chocolate or caramel  
dipping tank, and  
storage compartment.



There's nothing to it—get your unit, plug it in—and you're in business in the fastest growing industry in the country. Turn out 500 to 2,000 pieces per day ... depending on unit employed ... with a minimum of manpower and a complete cost of from 20c to 38c per dozen (water ice and ice-cream bars).

- Especially designed for low cost operation.
- No installation—just plug it in.
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- Baked White Dux cabinet with stainless steel top. Easy to clean, an ideal display.



We can still offer deliveries for the profitable Summer season ... write NOW for RECO catalog and prices. See the many sizes ranging from 40 to 8,000 dozen per day capacities.

\*Fall, Winter and Spring, too. Frozen Stick Confections are a popular favorite ... every season, everywhere.



**RECO PRODUCTS DIVISION**  
2020 NAUDAIN STREET, PHILA. 26, PA.



**THIS MARKS THE SPOT  
WHERE A  
GOOD BRAND IS SOLD**

**MODERN M-H OUTDOOR SIGNS POINT THE WAY—  
DIRECT THE TRAFFIC—TO YOUR RETAIL OUTLETS!**



Modern M-H Outdoor Signs rate a top position and appropriation in your 1950 advertising budget. For a few pennies a day they point the way to **YOUR BRAND and OUTLET**. They're a **MUST** in any ice cream promotional program.

**AND THEY'RE LOW IN COST, TOO!** The all-purpose identification sign shown here does the work of a box electric sign . . . yet requires only 2-100 watt lamps. Top and bottom panels may be changed with removal of a few screws. It's surprisingly inexpensive in lots of 15 or more.

Get in touch with us today! We'll gladly work with you on the creation of new designs for outdoor signs, or in the modernization of older designs.

**MULHOLLAND · HARPER  
COMPANY**  
SINCE 1909  
**METAL OUTDOOR ADVERTISING SIGNS**  
5820 TACONY STREET, PHILADELPHIA 24, PA.

ference will be noticed in the three samples. In the first place, the under-worked samples will be darker or yellower in color than the other two samples. The under-worked samples will also melt down much faster than the other two samples. The over-worked samples will probably have a very slow melt-down and may not melt down to a clear mix. When tasted a difference will be noticed in the apparent richness of the three samples. The under-worked sample will not taste as rich as the others, and in some cases we have seen a stiffly frozen sample judged to be 2% higher in butterfat than an under-worked sample of the same mix frozen on the same machine to the same overrun. The product that you want will probably fall somewhere in between the two extremes of the under-worked and over-worked samples. The important thing is to recognize that the quality of your product can be affected by freezer operation and quality that can be brought out mechanically in a freezer is quality at its lowest cost.

The continuous freezer is more than a production machine and efficiency should not be measured merely by rate or gallons per hour produced. Whenever efficiency in a production operation is measured by rate alone, the quality of the product may suffer. The maximum capacity of a continuous freezer is the greatest at which you can freeze your mix to the stiffness desired. When all conditions are favorable, that maximum capacity may exceed the manufacturer's rated capacity. By the same token, when one or more operating conditions are unfavorable, the maximum

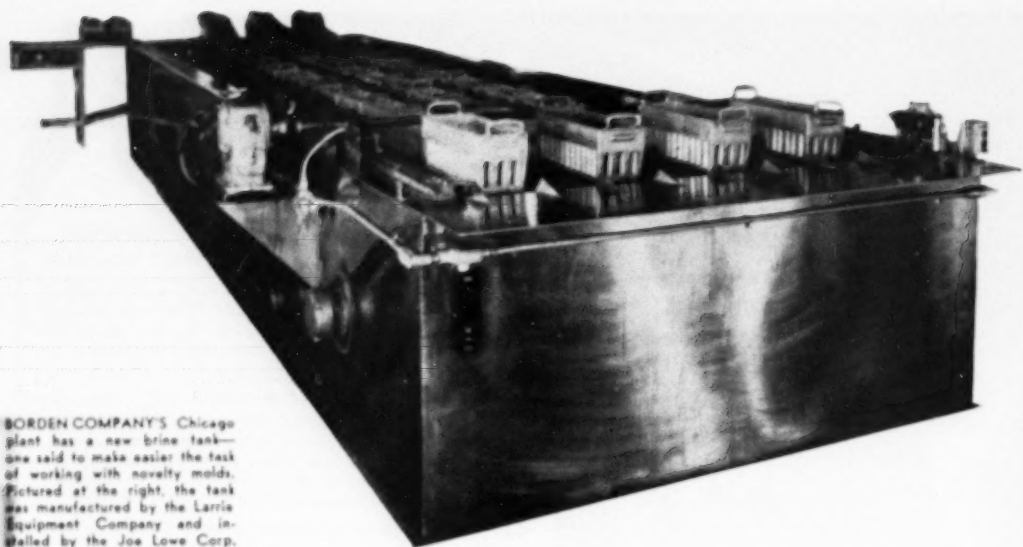
capacity of the freezer for optimum quality may be somewhat less than the rated capacity. The operator's guide to quality operation is the stiffness to which the product is being frozen. To get the most out of your mix, to amplify your mix quality with a smooth texture, maximum flavor and a uniform product from day to day, your operator must freeze stiff.

The factors affecting continuous freezer operation can be broken down into two groups—the first, factors outside of the freezer, such as refrigeration and mix; the second, factors in maintenance and operation, which are directly related to or within the freezer itself.

It would be impossible within the scope of this article to attempt to thoroughly cover the subject of refrigeration and mix as pertains to freezer operation. We can attempt to summarize the subject very generally. The thing we hope to do is to help you to recognize the nature of your operation problems; to be able to distinguish between a refrigeration problem, a mix problem or a maintenance problem. The symptoms are pretty much the same and as far as the operator is concerned the end result in every case is that he has difficulty in freezing the ice cream stiff. Still with each of these problems there are little differences in the way they affect operation which make it possible to distinguish one from another quite accurately.

As refrigeration probably gets the blame for more freezer operating difficulties than any other one factor, this

(Continued on page 46)



BORDEN COMPANY'S Chicago plant has a new brine tank—one said to make easier the task of working with novelty molds. Pictured at the right, the tank was manufactured by the Larrie Equipment Company and installed by the Joe Lowe Corp.

## No More "Broken Backs"

**W**ITH increasing hourly wage rates and increased ingredient costs, the ice cream manufacturer has been forced to look for labor saving machinery to secure lower novelty production costs.

Machinery by itself, however, is not a cure-all. Common sense still plays an important part in the successful plant operation. Machinery and poor management will not lower costs. Good management and a minimum of machinery will lower costs. Mechanization and good management produce unbelievable results.

### Increased Efficiency Sought

The equipment manufacturers are constantly seeking increased efficiency in their stick confection operations. Making a burdensome task less tiring or eliminating one or two persons in a production line are the goals of their engineers.

The development of the simple brine tank into an integrated piece of equipment, doing several jobs well, eliminating one man of the crew and making one of the most

unpleasant jobs in the room less arduous, represents one of the most significant achievements credited to these engineers. Such a brine tank, as manufactured by the Larrie Equipment Company of Dallas, Texas, was recently installed in the Borden Company's Chicago plant by the Joe Lowe Corporation, and is illustrated on this page.

This tank includes the usual brine tank, an elevator which automatically lowers the molds from the top of the tank into the brine, a mold pusher to mechanically advance the molds through the brine, and a transverse conveyor which automatically moves the molds across the drain board of the brine tank to the defrosting tank. These three new additions are interlocked electrically for safety.

Those who have worked around a brine tank have had the unpleasant task of setting the molds into the brine tank, or "pulling" the molds at the end of the brine tank, have had "broken backs" along about 10:30 A.M. and

***topic of the month***

2:30 P.M. There is no doubt that two of the most tiring positions in the novelty room are at the "in" and "out" ends of the brine tank. The lateral conveyor at the end of the tank has eliminated the puller position completely, thereby releasing one man from the tank crew. (This is true when the size of the tank is such that two men are needed at the "out" end, one for pulling and the other for defrosting).

#### **This Makes It Easier**

The work at the "in" end of the tank is made much easier by the lower mechanism. Setting the molds into the brine is often a difficult and cumbersome operation. The molds must be lowered into the brine without tilting. Putting the molds into the brine at an angle may allow brine to run into the molds and so ruin the contents. The rails upon which the molds are set are ten inches below the top of the brine tank. Each mold, and its contents, must be lowered this distance every time a mold is placed in the brine tank. Because a mold is about nineteen inches long, the operation of setting it into the brine must be done with one of the arms fully extended. This awkward position, while lowering the mold ten inches and keeping it level, results in one of the most tiring jobs in the novelty room. All of the back-breaking work is said to be eliminated when the lowering mechanism is used. The molds are set onto small platforms at the level of the top of the tank, and

from there the mechanism gently lowers a row of molds into the brine at one time.

#### **Safety and Efficiency**

The easing of the work at the "in" end of the brine tank makes it possible for the entire production line to work at better efficiency, for the room can produce no more confections than those frozen in the tank. If the rate at which molds going into the tank is maintained at full capacity all day long, the production must rise.

The electrical tie-in of these three additional units leads to safety and efficiency. When all the molds are in place on the lowering platforms, a button is pushed, which lowers the molds gently onto the tracks under the brine in the tank, and then sets the mold pusher into motion. The pusher moves a row of molds forward the distance of one mold. When the brine tank is full of molds, this forward movement advances a row of molds up onto the drain board of the brine tank, and in turn pushes a row of molds on the lateral conveyor. The lateral conveyor moves the molds, one at a time, to the defrosting tank. The elevator and mold pusher cannot be started again until all the molds on the drain board have been defrosted.

The lateral conveyor can be a pusher type instead of the chain conveyor type. In the pusher type of conveyor, all of the operating mechanism is above the drain board.

## *Your Profit Plan*

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- ★ **Concentrated Merchandising**
- ★ **Finer Flavored Vanilla Ice Cream**

All America loves Van-Sal. That's why your selling becomes more effective . . . and costs go down . . . when you use popular Van-Sal Vanilla. Let Van-Sal help you to build bigger volume . . . more pleased customers. Taste tests prove it. More people like Van-Sal vanilla ice cream because of its deep rich satisfying flavor-goodness. You'll agree when you have tried Van-Sal . . . and made your own taste tests. May we tell you more?

**VAN-SAL COSTS LESS BECAUSE IT GOES  
FARTHER • FLAVORS MORE GALLONS OF  
FINISHED ICE CREAM**

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**A Great Name In Vanilla**

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Wherever they go  
**ICE CREAM  
SALES GROW**



**NEW EMPIRE  
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Empire quality Wafers are made especially for ice cream sandwiches. The blending of wafer and ice cream gives Empire Sandwiches their delicious taste and their exceptional ability to sell ice cream every month of every year! Send for samples today... You'll see why Empire's your best buy!

P.S. Ask about our new NICKEL SANDWICH wafer!

**EMPIRE BISCUITS**

30 Waverly Avenue, Brooklyn 5, N. Y.  
Division of Airline Foods

## Equipment and Supplies

—from page 32—

individual and my remarks are based on my own observation and on my reading of widely published economic statements.

For your postwar dollar you are getting today in dairy processing equipment and supplies generally more value than you have ever received before. This applies to purchases for either new or replacement uses.

Now, don't rate up and say that this assertion must rest on some statistician's trick. No, it is true because although, by and large, it takes \$1.70 of today's money to buy what you could get for a dollar alone in 1940, as nearly as I can gauge by observation you need to pull out of your pocket only \$1.40 of today's money to get what would have cost you \$1.00 in dairy equipment before the war. And I don't think any of you will dispute with me the technological advances which have gone into this equipment.

But it is only fair for me to say here at the same time that I do not see how suppliers and equippers generally can guarantee that this ratio will hold. Wage increases, possible further workers' benefits, higher costs of raw materials, these are too besetting. For the machine tools an equipment company buys now, for instance, it has to pay nearly twice what it did before the war.

Competition will incline an equipper or supplier to struggle to let prices rise. Can he win the struggle? He has worked really desperately to win it so far. I am not sure he can continue to win it. If he *should* fail, remember how long and how hard he has tried.

When dairy industries people get together I am always impressed that they are of the very type that is the bulwark and sinew of American private enterprise. They are the medium sized and small business man—as I see it, the business man at his best and soundest. Many of us have come up through the ranks. Many of us have followed in our fathers' and even grandfathers' footsteps. Many of our sons are being trained to take our places. We have learned, in our half of this century which has seen in our industry one of the most spectacular developments in supplying food that the world has ever known, that we must all work together to continue to provide to the public the high quality, sanitary, delicious dairy foods—and in the quantities—it demands. It is gratifying that the great bulk of the dairy processors and almost every firm in the Dairy Industries Supply Association still can be counted as Small or Medium Business, and that in our work together so many of us can call each other still by our first names.

We suppliers and equippers take pride in our association—in our identification—with you. We hope that you take an equal pride in there being at your disposal a competitive, responsible supply and equipment field.

Let us keep up our progress together. There is no greater service we can do the business world.

ICE CREAM FIELD, April 1950

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Sterling's Hilton-Davis  
Chemical Co. Division, Cin-  
cinnati, Ohio, the home of  
PARAKEET COLORS



A color chemist operating  
spectrophotometer—one  
step in our color control to  
insure quality.



\*offers a complete line of  
Certified Food Colors manufactured  
by a leader in the color field for 25 years

Write us for Prices and Detailed Information.

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### WORLD'S LARGEST SUPPLIERS OF VANILLIN

## Continuous Freezers

—from page 41—

should be discussed first. When refrigeration difficulties are being experienced, the ice cream cannot be frozen stiff, at least at rated capacity, the discharge temperature of the ice cream is high, and the motor load on the freezer is low. The thing that distinguishes the refrigeration problem from other freezer operation problems is that the freezer is operating with a low motor load. It is almost impossible to overload the motor or freeze up the freezer when for some reason or other you cannot get adequate refrigeration at the freezer.

The refrigeration capacity required for a continuous freezer can be estimated on the basis that 30 gallons per hour of ice cream at 100% overrun can be frozen per ton of refrigeration at 5 lbs. back pressure. At lower overrun, the capacity of ice cream frozen per ton of refrigeration is less than at higher overrun. For overrun less than 100%, the capacity per ton of refrigeration can be estimated on the basis of freezing 15 gallons of mix per hour. You will also notice that the capacity is based on tonnage available at 5% back pressure.

The freezer or freezers must be installed with suction lines of proper size, with suction headers where required, and so that other equipment in the plant will not affect freezer operation. A rule of thumb method that can be

used to calculate minimum suction line size is to figure .8 sq. in. cross section area of suction line pipe per 100 gallons of ice cream at 100% overrun (50 gallons of mix per hour) for suction lines up to 100 feet in length. If refrigeration difficulty is due to lack of capacity or suction line sizes too small, the operator will be unable to get the evaporator pressure (back pressure at the freezer) as low as required to permit him to freeze a stiff product.

Oil in the system is probably the most common cause of refrigeration difficulties in continuous freezer operation. The continuous freezer evaporates approximately one pound of liquid ammonia per gallon of ice cream frozen. All refrigeration systems contain some oil and even though the percentage of oil in the system is very low, it is impossible to keep oil out of the freezer. If the system only contains 1/100ths of 1% oil, which is very low, and on the basis of the freezer evaporating a pound of liquid ammonia per gallon of ice cream frozen, for every 1000 gallons of ice cream frozen 1.6 ounces of oil would be left in the freezer. Since we cannot keep the system absolutely free of oil, the type of oil used becomes more important than the amount in the system. The oil must have a low pour point (under 25° below zero), a high flash point (over 300° F.), and must be of a type that will drain freely from metal surfaces and is wax-free. Oils that have a high pour point and will congeal at temperature above the operating temperature of the continuous freezer, will gum up in float valves and other operating parts, causing them to be sluggish in operation or completely fail. A quick check on the oil you are using is to take a sample of the oil that you get from the accumulator of your freezer, put it in the hardening room at temperatures about 20° below zero, and cool the oil to the hardening room temperature. The oil must remain fluid at that temperature.

In most cases where trouble is being experienced with oil in the system, the freezer will operate satisfactory and at full capacity at the start of the run but will gradually drop off in performance during the day's operation, making it necessary for the operator to reduce capacity near the end of the day's run in order to maintain stiffness desired.

Heating the cylinder during the clean-up operation is generally enough to cause the oil on the cylinder wall to become fluid and drain from the metal surfaces so that the tube wall is relatively free of oil at the start of the next day's run. In time a film will build up on the cylinder wall that cannot be removed merely by heating the freezing cylinder and it will be necessary to use solvent to remove that film, or even more effective where the design of the machine will permit it, to actually scrub and polish the refrigerated surface of the freezing tube. Oil will drain faster and more freely from a polished surface.

Another common refrigeration trouble experienced in freezer operation is starving the freezer of liquid ammonia. Liquid starvation can be the result of one of a number of things, such as too low a liquid level in the receiver for the



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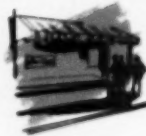
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system, liquid lines long and too small to carry the amount of liquid required for all equipment on those lines, strainers blocked or float valves not operating properly. The thing that makes liquid starvation a serious problem, outside of the difficulties and inconveniences that it might cause in freezer operation at the time the trouble is occurring, is that when the liquid lines to the freezer are starved, gas will find its way into the liquid lines. Gas in the liquid line will burn out the seats of control valves, causing them to leak, giving further trouble after the starvation difficulties have been eliminated. In too many cases, liquid starvation is the result of an inadequate supply of liquid ammonia in the receiver. Under no circumstances should the level of the liquid in the receiver be allowed to go below a level two inches above the inlet to the stand pipe.

#### A Wide Variety

Freezing and whipping characteristics of the mix also exert an influence on freezer operation. These are recognized by all batch freezer operators but sometimes overlooked by continuous freezer operators. The freezer is capable of handling a wide variety of mixes and it is not necessary to make any special mix for continuous freezer operation. Most mixes can very easily be frozen to a normal stiffness at rated capacity but under some conditions freezing and whipping characteristics of a mix may be such as to make it very difficult, if not impossible, for the operator to freeze a stiff ice cream. The symptoms of a mix problem are: The operator will have difficulty in freezing the ice cream stiff; the temperature of the ice cream as discharged from the freezer will be low (under 22°); and the freezer will be pulling a normal or heavy motor load. You will notice that the distinguishing difference between a mix problem and a refrigeration problem is in the low discharge temperature of the ice cream and the motor load.

We have seen some mixes frozen so stiff at 23° that it would be very difficult to get the temperature of the ice cream as discharged from the freezer much lower than that. After the ice cream in the freezer reaches a certain stiffness, it becomes so dry that there is not enough fluid to rapidly transfer heat, with the result that the ice cream temperature cannot be lowered. An attempt to get lower temperature under these conditions will result in an overworked product and an overload on the freezer. By the same token, we have seen mixes that would not be frozen stiff at temperatures as low as 19°. Under these conditions it is necessary to operate the freezer at reduced capacity or make adjustments in the mix to improve freezing and whipping characteristics.

There are three factors that determine the stiffness to which the product will be frozen in the freezer. The amount of water frozen into ice; the water held by protein and other ingredients in the mix; and the overrun to which the product is frozen.

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er is an indicator of the amount of water frozen to ice and charts can be developed for any mix formula that will tell the percentage of water frozen into ice at any temperature. When ice cream must be frozen to a low temperature to get a stiff product, it means that a high percentage of the water in the mix must be frozen to ice in order to get that stiffness.

Water that is held by the protein or other ingredients in the mix does not have to be frozen into ice to give a stiff product. We can use the comparison of a raw egg and a hard egg as an illustration of water held by the protein. A raw or uncooked egg obviously contains a lot of water. It is fluid, it can be poured, and its general appearance is such to indicate that it contains a lot of water. A hard boiled egg, however, is very dry, it is not fluid, it will not pour and if squeezed it will break but little or no moisture will be released. Still there is almost as much water in a hard boiled egg as there is in a raw egg, but the nature of the protein is such after boiling that it ties up the moisture. Protein in the mix can tie up water in the same way and water thus held does not have to be frozen into ice to give a stiff product. The nature of the protein in superheated condensed skim milk is somewhat of the same nature as the protein in a hard boiled egg and will tie up the maximum amount of water in the mix. The protein in regularly processed condensed skim milk is more in the nature of the protein in a raw egg and will leave more free water in the mix that must be frozen into ice to give a stiff

*This article is based on a talk given by Mr. Forster at the annual Ice Cream Conference, held March 3 at North Carolina State College, Raleigh.*

product. Without any attempt to get into the rather controversial subject as to whether it is better to use a stabilized or de-stabilized protein in the mix, we refer to the nature of the protein merely from the standpoint of its effect on freezing operation. The greater the amount of free water in the mix that must be frozen into ice, the greater the refrigeration load on the freezer, the lower the drawing temperature of the ice cream, and the harder it is to freeze the product stiff.

The amount of overrun taken also affects the ease or difficulty of freezing the product stiff. In a partially frozen mix, the liquid or serum surrounds the ice crystals and air cells. The greater the number of air cells, the more area there is for the serum to cover, and the thinner the liquid film around the air cells. With a higher overrun, therefore, the liquid or serum is spread over a greater area, making it much easier to get a dry, stiff product. When overrun is lowered, the amount of water held by the protein or that frozen into ice must be increased if the product is to have the same stiffness that was obtained at higher overrun.

Freezer operation must therefore be adjusted to the freezing and whipping characteristics of the mix. When a mix is very hard to freeze stiff, and if quality is to be maintained, it may be necessary to slow down the freezer below its rated capacity. With a mix that is very easy to freeze stiff, the operator may be able to run at greater than rated capacity for the freezer and still maintain optimum product quality. The stiffness to which the product is frozen is the indicator of quality.

It might be well at this point to mention the importance of the temperature of the mix going to the continuous freezer. The higher the mix temperature ahead of the freezer, the greater the refrigeration load at the freezer. A difference of 10 degrees in the temperature means a difference of approximately 8% in the total refrigeration load on the freezer. It is generally recommended that the mix supplied to the freezer should be at least 40° F. or colder. Cooling mix to lower temperatures ahead of the freezer takes that load away from the freezer and increases its freezing capacity.

The second group of factors that can affect continuous freezer operation are those that are within or directly related to the freezer itself. The continuous freezer is a machine. It contains a drive, controls and parts that will wear. It needs lubrication, adjustment, care and attention, the same as any other piece of equipment. Proper freezer maintenance pays off in continuous, maximum production of high quality products.

Continuous freezer maintenance problems can be broken down into four classes. First, we have strictly mechanical maintenance not directly related to freezing and whipping operations of the freezer. Mechanical maintenance in-

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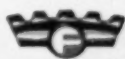


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# Frigidaire



## Zero Self-Servers

cludes lubrication, care and adjustment of drive, motor and electrical equipment. Proper mechanical maintenance will increase the life of the machine and minimize costly shut-downs because of mechanical failure.

The second class of maintenance problems are those which are related to the operation of the freezer refrigeration system. The symptoms and some of the causes of refrigeration difficulties were discussed earlier. Refrigeration difficulties may be traced to the plant refrigeration system or to the refrigeration control system in the freezer itself. Regardless of the source of the trouble, the symptoms are the same—namely, that it will be difficult to freeze the ice cream stiff, the ice cream discharge temperature will be high, and the freezer will be operating with a low motor load. Maintenance of the continuous freeze refrigeration control system includes keeping the freezing cylinder clean of oil and the back pressure regulator, float valve and other control valves operating properly.

The third class of maintenance problems comes under the general heading of scraping. The continuous freezer cannot do an efficient job if the scraper blades cannot remove the film of ice that forms on the freezing cylinder wall. When the scraper blades are not scraping properly, it will be difficult to freeze the ice cream stiff, the discharge temperature of the ice cream will be high and the freezer will be operating under a high motor load. You will notice that the symptoms of poor scraping are the same as for refrigeration difficulties except in the case of poor scraping the freezer motor load is high. When the blades

are not scraping properly, the freezer may be operating with the motor over-loaded and the operator still unable to get a stiff product. Poor scraping can be distinguished from a mix problem in that the discharge temperature of the ice cream will be high.

Care of the scraper blades is the most important maintenance operation for good scraping. The freezer manufacturer's instructions for care of blades should be followed. New blades may not perform their best when first installed in a freezer, as new blades will have to wear in to perfectly match the freezing cylinder. Freezer blades should be marked so that they will always be used in the same freezing cylinder. For good scraping the freezer dasher must run true. Worn bearings or misalignment of the dasher can be responsible for poor scraping.

#### Control of Overrun

The fourth class of freezer maintenance problems is that related to control of overrun. When difficulty is experienced in getting overrun control, the operator will not be able to get the package weight required or the weight of the packages as taken from the freezer will vary. In the continuous freezer, overrun is controlled by metering in the amount of air required to give the overrun desired. If the overrun is higher than desired, it means that too much air is being taken into the freezer for the volume of mix being run. If the overrun is too low, it means that not enough air is being taken into the freezer or the ice cream is not being frozen stiff enough to hold the volume of air required to give that overrun. The pumps are the heart of the freezer overrun control system. If pumps are worn or improperly adjusted, overrun control difficulties may be experienced. Leaks in the mix or air lines can be responsible for variations in overrun. Maintenance operation to assure overrun control therefore includes care and adjustment of pumps and air control valve, and the keeping of all sanitary fittings in mix and air lines leak proof.

The continuous freezer is more than just a production machine and operating efficiency must be measured in terms of quality as well as rate or gallons per hour of ice cream produced. Quality in your product that can be brought out mechanically in the freezer is quality at its lowest cost. The freezer operator must know the range of quality control in his machine, be able to recognize the quality he wants, and operate the freezer to get that quality. He must realize that conditions will vary from day to day and that there are factors in refrigeration, mix and freezer maintenance that can affect operation. The freezer cannot be operated by any standard formula for gauge readings, capacity setting or discharge temperature. The best indicator of quality is the stiffness of the ice cream as discharged from the freezer and operating adjustments should be made as required to freeze to the stiffness desired. To get the most out of your mix, freeze stiff.

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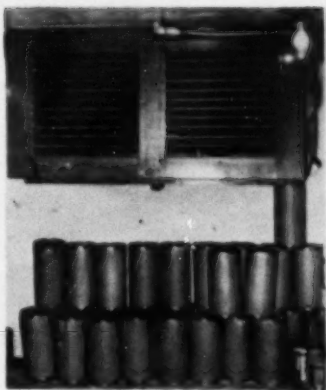
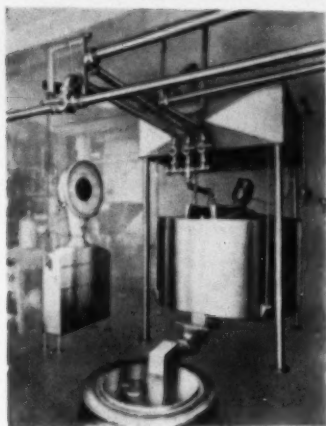


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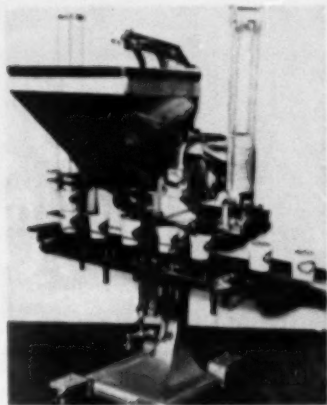
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McHALE MANUFACTURING Company of Los Angeles is responsible for the Mix Ingredients Weigh Tank (which weighs as it mixes) pictured below as installed in the Carnation plant. The tank is said to have resulted in savings of fifty per cent in labor, maintenance and equipment costs. ↓

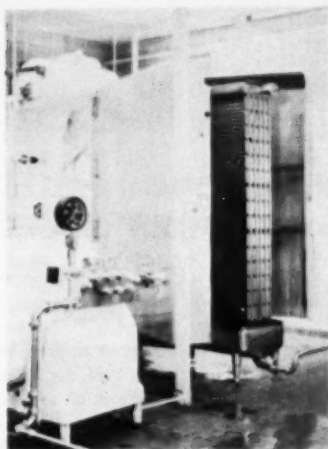


MARLO COIL Company of St. Louis, Missouri, manufacturers of heat transfer equipment, turned out this low temperature unit, which is installed in the ice cream freezing and hardening room in the Straub Clayton Plaza Store in St. Louis. ↑

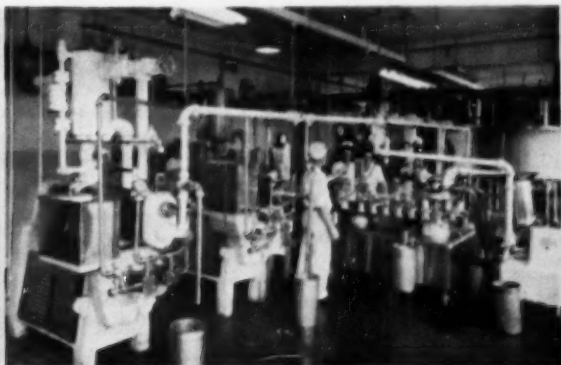
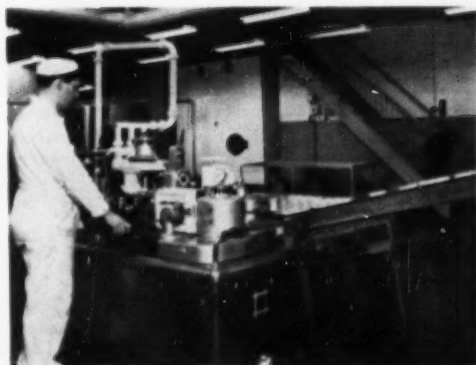
LILY-TULIP Cup Corporation of New York City designed the pint Nestrite Container with the Snapover Lid which can be automatically filled and capped on the Anderson automatic equipment. Up to forty-five such packages can be run through per minute, according to the manufacturer. ↓



MOJONNIER BROS. Company of Chicago manufactured the stainless steel compact cooler illustrated in the adjacent photograph. Used to cool ice cream mix, the unit is installed in the Central Ice Cream Company of Chicago. →



EX-CELLO CORPORATION, Detroit, Michigan, manufactured the Model PA Senior Automatic Ice Cream Packaging machine, shown in the bottom photograph as installed in the Dean Milk Company, Belvedere, Illinois. Note the conveyor attachment which transfers the packages to the automatic freezing tunnel. At the right is the same packaging machine, set up in the Detroit Creamery Company plant in Detroit, Michigan. In this instance, the packaging equipment is connected to three Vogt freezers. ↓



BY ALFRED LACHMANN, E. L. JACK AND D. H. VOLMAN

University of California  
Davis, California

## Isothermal and Isobaric Degassing of Ice Cream

THE DEGASSING of ice creams isothermally and isobarically has been investigated with particular reference to the amount of air liberated and its relation to the strength and permeability of the ice cream structure.

When air escapes from ice cream a decrease of ice cream volume is observed at certain pressures and temperatures. The amount of air liberated depends partly on the structural strength and permeability of an ice cream of fixed composition. The strength of the structure may be weakened by a multitude of factors. In addition to the composition of ice cream, the manufacturing procedures are of great importance and can influence the stability of the ice cream mix. Homogenization pressure, different freezing techniques, percentage of incorporated air (overtun—i.e., the increase in volume of the ice cream over the volume of the mix) temperature changes in hardening room and storage cabinet are only some of the factors which play a great

part in the structure of the final ice cream product. On the basis of results of a large number of investigations, various theories have been proposed interpreting the weakening of the ice cream structure (1-13).

From all the studies it is to be expected that fracture of air cells enclosed in the ice cream structure would be accompanied by diffusion of the incorporated air from the ice cream. The diffusion rate is related to the rigidity and permeability of the particular ice cream structure. Therefore, the change of external temperature and pressure and its effect on ice cream in relation to the amount of air liberated can give information about the strength and imperviousness of ice cream if the volume of air liberated at selected temperatures and pressures is measured quantitatively. No publication of this type of investigation has been reported.

### Apparatus

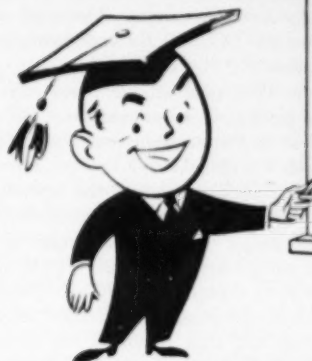
Figure 1 shows the apparatus used in the investigations. It is composed of the reaction chamber containing a weighted amount of a large test tube with a capacity of approximately 350 to 375 ml. Its opening is wide enough to allow an easy drawing of the ice cream into the container from the freezer unit. A Dewar flask filled with an alcohol-

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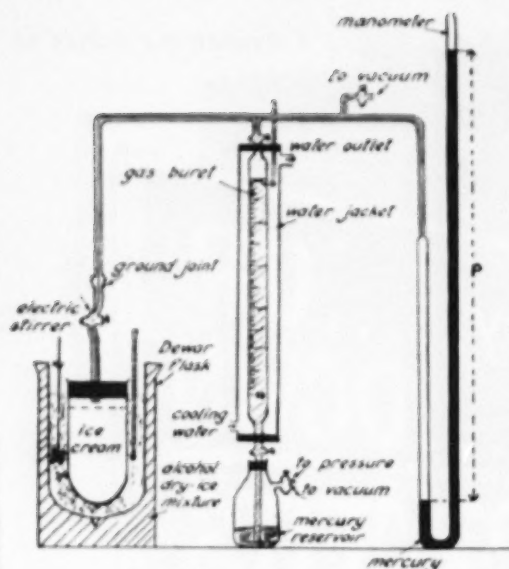


Figure 1. Apparatus for Isothermal and Isobaric Degassing of Ice Cream

dry ice mixture provides the cooling at the desired experimental temperature. The gas buret of 50-ml. volume graduated in 0.1 ml. is used to measure the volume of air liberated. It is immersed in a water jacket to keep the temperature constant during the investigation. The bottom of the buret is connected with a mercury reservoir permitting pressure regulations by manipulation of the stopcock. With this arrangement no leveling bulb is necessary. With a water aspirator, the desired pressure is obtained and measured by the attached mercury manometer.

**PREPARATION OF ICE CREAM.** Fresh cream of 30 to 35% fat, milk, skim milk, and condensed skim milk of approximately 35% total solids were the milk products used for the experimental mixes. The composition of the ice cream mix was as follows:

Fat, %	12.0
Milk solids, not fat, %	10.5
Sugar %	15.0
Stabilizer (sodium alginate), %	0.22
Total solids, %	37.72

The mixes were pasteurized at 71.1° C. (160° F.) for 30 minutes and homogenized by means of a viscolizer at a pressure of 2200 pounds per square inch. The flavoring material consisted of pure vanilla extract. The mixes were promptly cooled below 10.0° C. (50° F.) and stored at an approximate temperature of 4.4° C. (40° F.).

**PRELIMINARY TESTS.** The total volume of the reaction chamber, the specific gravity of the ice cream mix, and the amount of dissolved air in the mix were determined. The amount of dissolved air averaged 2.0 to 3.0 ml. at 760 mm. of mercury and 0° C. Calculation showed this amount to have no significance in affecting the results.

**PREPARATION OF SAMPLES.** The mix was frozen in an experimental Taylor batch freezer to about -4° C. and whipped to an overrun of approximately 100%. Overrun determinations were made by weighing a standard volume of the ice cream before and after freezing. The reaction chamber was filled with the partly frozen ice cream and placed in a Dewar flask containing an alcohol-dry ice mixture to complete the freezing to the temperature desired for the experiment. After holding 2 to 3 hours to insure temperature equilibrium, it was connected to the measuring device by means of a ground glass joint. As one experi-

TABLE I. ISOTHERMAL DEGASSING OF ICE CREAM AT SOME SELECTED TEMPERATURES

Expt. No. Overrun, %	1A 101	4B 95	2B 105	5A 95	2A 101	6 102	8 102	9 102	11 95
Pressure on Ice Cream, Mm. Hg	-10.4 °C.	-16.4 °C.	-20.4 °C.	Amount of Air Liberated*, ML. at -20.6° C.					
						°C.	°C.	°C.	°C.
760	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
700	13.4	0.0	1.0	0.0	—	0.8	0.5	0.0	0.6
650	—	3.6	—	1.7	—	1.0	0.8	0.12	1.3
600	—	17.6	25.3	5.1	—	1.5	0.5	0.49	1.0
550	—	6.0	—	20.3	—	10.2	0.6	0.12	0.9
500	—	5.9	16.5	7.0	37.9	16.4	0.3	0.86	1.2
450	—	7.2	—	6.7	—	9.7	0.6	0.19	4.3
400	—	6.8	14.1	6.0	14.5	9.8	0.6	0.37	1.1
350	—	—	—	—	—	9.0	0.7	0.55	1.6
300	—	—	14.2	—	14.1	8.1	1.7	0.0	1.1
250	—	—	—	—	—	—	1.4	0.74	1.2
200	—	—	14.0	—	13.8	—	2.0	0.0	0.9
150	—	—	—	—	—	—	70.0	0.43	1.0
100	—	—	14.6	—	14.5	—	7.8	0.19	1.4
50	—	44.3	8.7	—	7.1	—	8.2	0.12	1.0
19	—	5.0	5.4	51.0	4.7	51.2	5.0	0.43	0.4
Total amt. of air liberated	13.5	97.3	113.8	98.5	106.8	117.7	100.7	4.61	19.0

\* This amount is calculated for 200 cc. of ice cream and converted to normal conditions of 760 mm. and 0° C.

ment lasted from 2 to 4 weeks, the reaction chamber and Dewar flask were stored each night in a refrigerated cabinet. It was possible with this arrangement to maintain the temperature within  $\pm 1^\circ \text{C}$ .

**DEGASSING.** Two series of experiments were conducted. In one series the experimental pressure was lowered isothermally as selected temperatures ranging from  $-10^\circ$  to  $-50^\circ \text{C}$ , and in another series the temperature was raised isobarically at selected pressures from 760 to 300 mm. of mercury.

**EXPERIMENTS AT CONSTANT TEMPERATURE.** The reaction chamber was connected to the measuring device, the gas buret filled to the zero mark with mercury, and the initial experimental pressure adjusted to 760 mm. of mercury. When the reaction chamber was opened, the air diffusing from the ice cream structure created a slight positive pressure in the closed system which was equalized by the mercury column in the gas buret. Readings were taken periodically depending upon the rate of diffusion until an equilibrium was approached. As the diffusion never stopped completely, equilibrium was considered to be attained when 0.2 to 0.3 ml. of air was liberated after 3 to 4 hours of continuous degassing. The pressure in the system was gradually decreased stepwise until the final pressure of 19 mm. of mercury was reached. The time required for one complete experiment varied from 15 to 25 days.

**EXPERIMENTS AT CONSTANT PRESSURE.** The procedure was basically the same. Instead of varying the pressure, the temperature was gradually raised from  $-45^\circ$  to  $-16^\circ \text{C}$ , and the amount of liberated air measured until equilibrium was reached.

### Calculations

The measured amount of air was converted to normal conditions on the basis of the gas laws.

$$v_0 = v \frac{(273.2)}{p_0 (273.2 + t)}$$

$v$  = volume of measured air

$p$  = experimental pressure

$t$  = temperature of the gas buret

**DETERMINATION OF ICE CREAM VOLUME.** Inasmuch as it was impractical to fill the reaction vessel completely with ice cream, it was necessary to determine the volume of ice cream and correct the results for the air in the free air space.

Ice cream in the reaction vessel was weighed and this weight was considered to be the weight of mix since the weight of the incorporated air was insignificant. The volume of the unfrozen mix was calculated from its weight and specific gravity. By rearranging the formula for calculation of overrun based on its definition—

$$\% \text{ overrun} = \frac{\text{volume of ice cream} - \text{volume of mix}}{\text{volume of mix}} \times 100$$

The volume of the frozen ice cream is given by:

$$\text{Volume of frozen ice cream} = \frac{\% \text{ overrun} \times \text{volume of mix}}{100} + \text{volume of mix}$$

TABLE II. ISOBARIC DEGASSING OF ICE CREAM AT SOME SELECTED PRESSURES

Pressure on Ice Cream, Mm. Hg	Average Temp. of Cooling Bath, $^\circ \text{C}$	Amt. of Air Liberated*, ml.
Expt. No. 12, 100% Overrun		
760	-40	0.0
700	-40	0.0
700	-35.6	0.23
700	-30.4	0.0
700	-25.7	0.62
700	-20.3	0.58
700	-15.6	2.42
Total		3.85
Expt. No. 13, 103% Overrun		
760-650	-40.7	0.0
600	-40.4	0.0
600	-35.2	0.0
600	-30.1	0.8
600	-25.3	1.4
600	-20.4	5.0
600	-16.5	15.4
Total		22.6
Expt. No. 14, 97% Overrun		
760-550	-41.5	3.3
500	-40.7	1.1
500	-35.8	0.1
500	-30.4	0.7
500	-25.7	36.0
500	-20.0	2.8
500	-16.0	1.0
Total		45.0
Expt. No. 15, 100% Overrun		
760-450	-40.2	0.4
400	-39.8	0.0
400	-35.6	10.1
400	-30.7	36.2
400	-26.0	4.9
400	-20.8	3.4
400	-16.1	1.0
Total		56.0
Expt. No. 16, 98% Overrun		
760-350	-40.0	4.5
300	-40.0	0.6
300	-35.4	49.8
300	-30.7	3.5
300	-25.3	3.7
300	-20.4	1.5
300	-16.0	1.0
Total		64.6

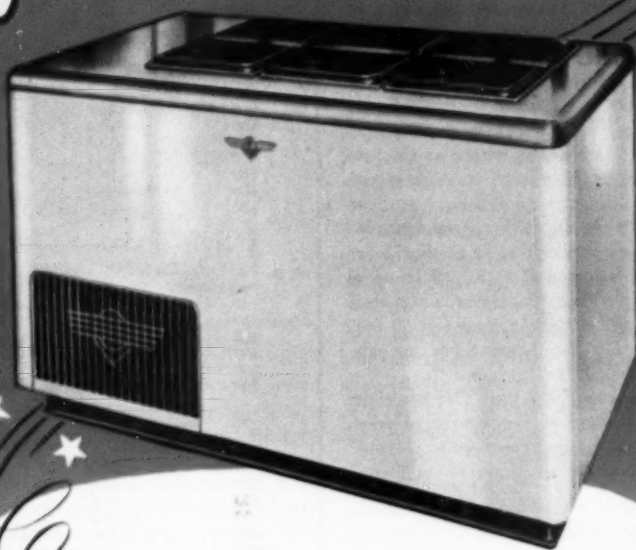
\* This amount is calculated for 200 cc. of ice cream and converted to normal conditions of 760 mm. and  $0^\circ \text{C}$ .

### Results

**ISOTHERMS.** Figure 2 represents the data of three experiments conducted at the same temperature. The difference consisted in the pressure to which the ice creams were subjected. In the first experiment, the pressure was reduced from 760 to 500 mm. and then further reduced by a 100-mm. interval. The largest quantity of air liberated from the ice cream was collected at 500 mm. of pressure. From 400 to 19 mm. the amount of air diffused was almost constant.

In the second experiment decreasing the pressure to 700 mm. resulted in liberation of a slight amount of air. At 600 mm. the largest amount of air liberated was collected

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The paper on which this article is based has been widely publicized as a sound analysis of the vital problem of ice cream shrinkage. A recent report in the *Oakland Tribune* confirmed the fact that prospects of shrinkproof ice cream are closer to realization as a result of this study.

for this particular experiment. Further pressure decreases in 100 mm. intervals again yielded an almost constant volume of air recovered for each determination. The graph illustrates the maximum inflection at 600 mm. and the leveling off to a straight line for the ensuing pressure changes.

In the third experiment, the pressure was decreased gradually in 50-mm. intervals. At 550 mm. the quantity of air liberated was the largest. The shape of this curve was characteristic of most curves determined. The amount of air evolved was insignificant until it reached a maximum and leveled off in a linear relationship.

Table I and Figure 3 illustrated the results of isothermal degassing for various selected temperatures. At  $-10^{\circ}\text{C}$ . the ice cream structure was so soft that the pressure could not be reduced to less than 700 mm. A considerable amount of air, however, was released at this particular pressure. At  $-16^{\circ}\text{C}$ . the largest quantity of air was evolved at 600 mm. When the temperature was gradually decreased to  $-35^{\circ}\text{C}$ . the ice cream structure became more rigid. Consequently, the largest quantity of air liberated was collected at lower pressures. At  $-40^{\circ}\text{C}$ ., the ice cream structure was so firm that no significant amount of air was collected throughout the experiment. The same is true at the temperature of  $-50^{\circ}\text{C}$ . However, the large amount of air liberated at  $-45^{\circ}\text{C}$ . and 19 mm. of pressure cannot be explained.

**ISOBARS.** The isobaric curves showed, in general, the same trend as the isothermic curves. Table II and Figure 4 represent the data. A maximum inflection was found at a single temperature and pressure in good agreement with the similar point derivable from the isothermic curves.

#### Discussion and Conclusion

The authors' interpretation of the characteristic form of the degassing curves seems to clarify, at least partly, the mechanism involved when ice cream was degassed at different temperatures and pressures. The air in the ice cream structure is in a discontinuous phase, and the air cells have the form of irregular bubbles surrounded by semisolid films. The thickness of these lamellae influences the strength and permeability of the structure. As long as the pressure differential is not great enough to fracture the air

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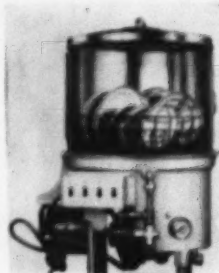
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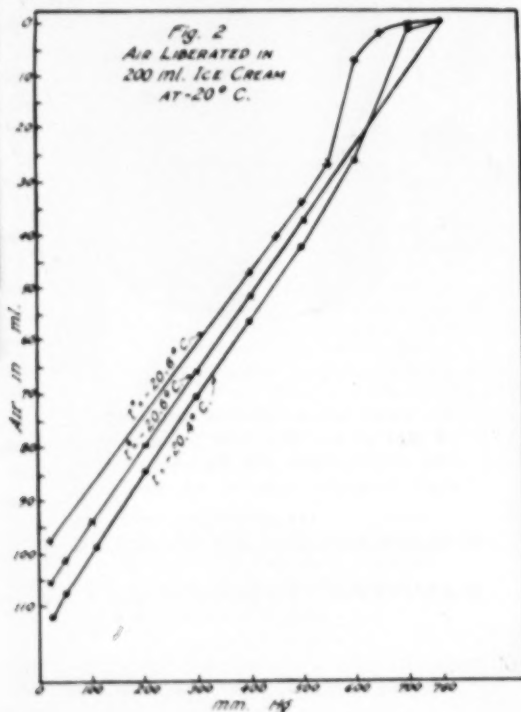
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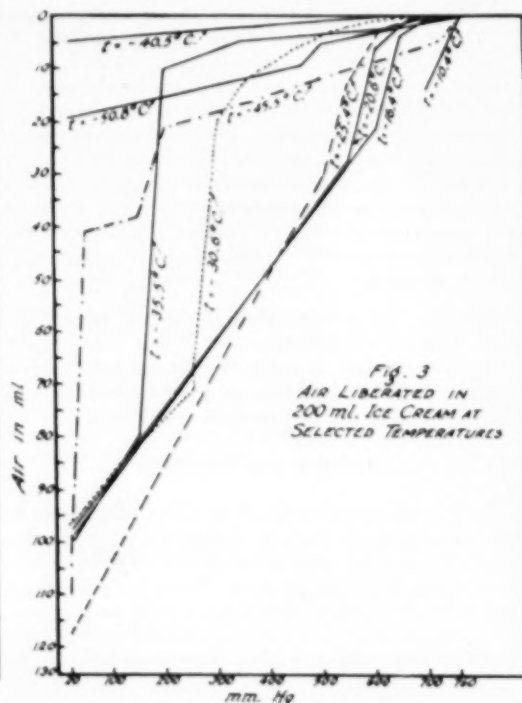
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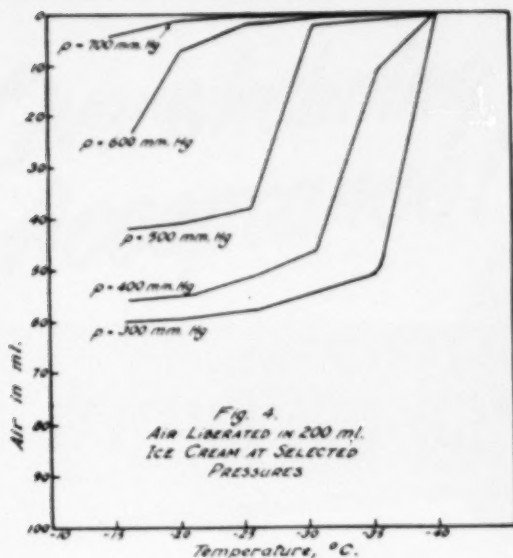


cells at any given temperature, the amount of air liberated from the structure will be relatively small. When the pressure is decreased or the temperature increased to a point where the air cells are fractured, the amount of air liberated will be considerably larger than if the cells are intact. The air diffuses from the rigid structure and during its passage forms continuous channels, thereby changing the ice cream structure. When equilibrium between the air in the ice cream and the applied pressure is attained and then the applied pressure is further decreased, the residual air can easily escape through the porous ice cream structure. Furthermore, the volume of the residual air is in accordance with the gas laws, inversely proportional to the pressure and should plot linearly. The curves (Figures 3 and 4) constructed from the experimental data support this interpretation. In addition to the volume relationships, the rate of diffusion also changes at the temperature and pressure differential point where cell fracture occurs. The air behaves as in a free space upon further changes in temperature or pressure.

### Application to Shrinkage

It has also been observed that the maximum quantity of air liberated is related to both the temperature and the pressure, to which an ice cream of a definite composition is subjected (Figure 5). If the pressure at which the largest amount of air is liberated is plotted as ordinate and the respective cooling temperature of the ice cream as abscissa,





two curves for the isothermal and isobaric degassing result. Both represent the strength of a particular ice cream and indicate to what pressure and temperature it can be subjected without undue weakening of the rigid matrix. In these experiments, ice cream held at  $-40^{\circ}\text{C}$ . has such a rigid structure that only an insignificant amount of air will be liberated at even a very low pressure. At  $-20^{\circ}\text{C}$ . the structure is weakened to such an extent that a reduction in applied pressure to 600 to 550 mm. will be sufficient to fracture the air cells.

It is believed that application of these results can be made to a study of the shrinkage problem in ice cream. Assuming that the tendency to shrink is related to the structural strength of the air cell lamellae, then the quantitative determination of the lamellae strength should serve as a guide to possible shrinkage. Referring to Figure 5 it will be observed that the break in structure, for this particular ice cream, occurred at a definite pressure and temperature. If, in another ice cream, the breaking point should come at a higher pressure for the particular temperature or at a lower temperature for the particular pressure, this condition would indicate weaker lamellae and probably a greater tendency toward shrinkage. Experiments are being conducted to observe the structural strength in ice creams prepared with different treatments.

#### Summary

Ice creams of fixed composition have been degassed in one series of experiments by lowering the applied pressure isothermally at selected temperatures between  $-10^{\circ}$  and  $-50^{\circ}\text{C}$ . and in another series by raising the temperature isobarically at selected pressures between 760 and 300 mm. The amount of air escaping from the ice cream has been measured. Curves representing the isothermal and isobaric experiments have been constructed. When the degassing is conducted at constant temperature, a maximum quantity

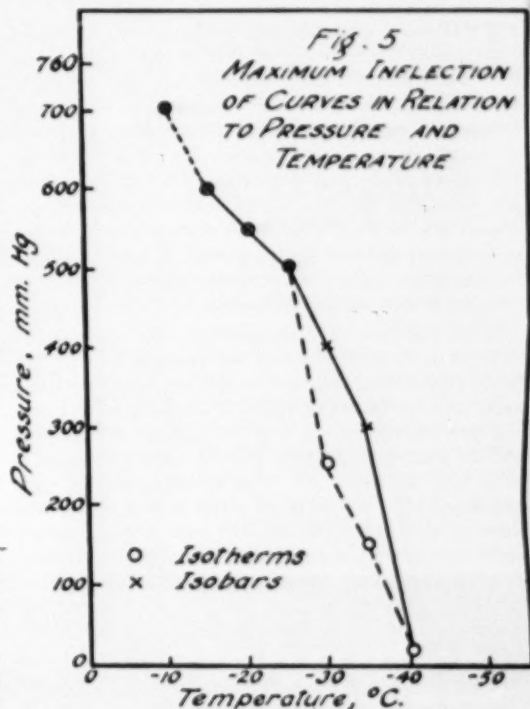
of air is liberated at a definite pressure, and, conversely, when the degassing is conducted at constant pressure, a maximum quantity of air is liberated at a definite temperature. The data are discussed in terms of strength and permeability of the ice cream structure.

#### ACKNOWLEDGMENT

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# REPORT ON APPLE ICE CREAM

BY J. C. HENING AND CARL S. PEDERSON  
*New York State Agricultural Experiment Station  
Cornell University, Geneva, New York*

**T**HE flavor of well-ripened apples is one of the most delicate and pleasing of that of any of the fruits.

Many attempts have been made to impart this flavor to ice cream. However, these have not met with success because not enough of the true delicate apple flavor was discernable in the finished product. Ice cream makers are fully aware of the fact that delicate fruit flavors may be lost when they are incorporated into an ice cream mix. Mature peaches used in ice cream often give a flavor that is disappointing because it is so weak. However, strong-flavored fruits such as red or black raspberries, strawberries, or pineapple are highly desirable flavors for ice cream.

Work with purees of individual fruits and combinations of fruits in the development of new formulae for fruit ices led to experimental tests with a new type apple juice and apple juice concentrate developed at this station. This juice and concentrate prepared from the juice are light in color and the fresh apple flavor is retained. When ice cream is made with this concentrate it has the desirable light color and appearance of vanilla ice cream with a strong true flavor of apple. However, ice cream made with an ordinary apple concentrate had a grayish color and the musty cider flavor of pasteurized cider. Since the success of apple ice cream depends upon the preparation of the juices and concentrate, the method of preparation will be included in this report.

Everyone knows that in order to make a high-quality product the best quality of available materials must be

used. The apple juice and concentrate have the flavor of fresh apples. Can this fresh apple flavor be imparted to ice cream? The only way to find out was to try it. The results show that, with the concentrated form, it is possible to use sufficient apple to give a distinct pleasing apple flavor. Such tests are a pleasure when they turn out so successful as was the case this time. The ice cream was frozen in a six-quart Taylor counter freezer, using a mix containing fourteen per cent milk fat, ten per cent milk solids not fat, and sixteen per cent sugar.

## Tart Apple Flavor

The apple concentrate available at first was prepared from a blend of apples with the high total acidity of 0.74 per cent. This apple juice contained 14.3 per cent soluble solids and the concentrate prepared from it thirty-seven per cent soluble solids. After trying various amounts of the concentrate it was found that twenty-nine per cent produced a very pronounced tart apple flavor. However, to some individuals the resulting ice cream had a sour after-taste. Mild acid juices are more common than such high acid juices and should be more suitable for apple ice cream.

A concentrate was next prepared from the low acid McIntosh apple. A concentrate was also prepared from Baldwin, a high acid apple, and also from blends of other apples.

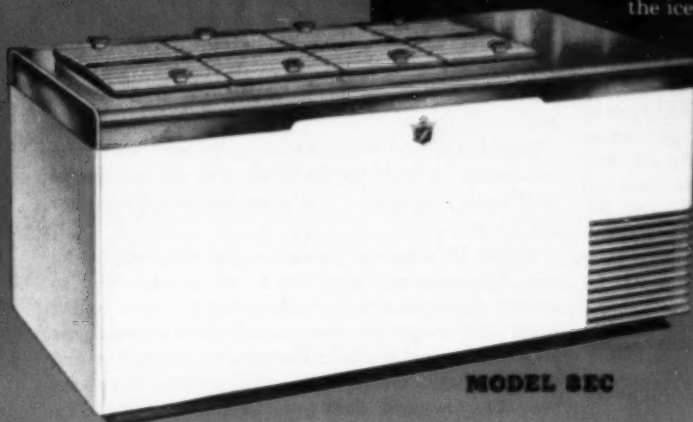
The concentrate prepared from McIntosh apples blended with ice cream mix gave a very pleasing fresh, clean,

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apple-flavored ice cream. The ice cream prepared from a blend of apples was satisfactory in appearance and depth of flavor but was not as pleasing as that prepared from the McIntosh concentrate. Baldwin concentrate blended with McIntosh concentrate 1 to 4 gave a good product. However, the McIntosh concentrate alone was the most satisfactory.

The McIntosh juice contained 13.0 per cent soluble solids and the concentrate forty-nine per cent. It was found that twenty-four per cent of this concentrate made the best apple-flavored ice cream. On a 100 pound basis 76 pounds of ice cream mix were used with twenty-four pounds of the concentrate. The concentrate was added to the partially frozen mix in the freezer. The majority of individuals who have tasted it think it contains about the right amount of apple flavor. The amount of concentrate required depends, of course, upon the soluble solids content of the concentrate.

The favorable response to this apple ice cream has been very gratifying. Neil Marvin, Manager of Margroves, Inc., a local ice cream company, considered it such an excellent product that he wished to determine its consumer acceptability. He prepared some of the apple juice and concentrate, with McIntosh apples, and made over 800 pints of ice cream with it under our supervision. He took the names and telephone numbers of persons purchasing the apple ice cream and 350 of them were contacted by telephone. The results of the survey made are as follows:

Number of pints sold	800
Persons contacted by telephone	350

#### Results of survey

Ice cream excellent, wonderful, etc.	296
Acceptable but slightly on tart side	14
Acceptable but slightly on sweet side	11
Dislikes flavor altogether	8
Too strong in apple flavor	6
Too weak in apple flavor	4
Apple ice cream only fair	10
Would buy again at same price (45c)	295
Would not buy, regardless of price	10
Would buy occasionally at some price	45

All in all, the product was well received and the reaction above proved our point. "We have had many calls requesting the flavor since discontinuing the sales," Mr. Marvin said.

Recent tests have been made using the same amount of concentrate to flavor the ice cream with the addition of small apple slices after the ice cream has been drawn from the freezer.

Golden Delicious and Baldwin apples were used in this test. The apples were sliced into a 1 per cent salt brine, to prevent discoloration, and the slices then placed in boiling water and blanched for approximately three minutes after the water returned to a boil. The water was drained off and the slices soaked overnight in a fifty per cent sugar solution. This prevented them from freezing hard in the ice cream when it was hardened. When ready to use they were removed from the syrup and chilled prior to mixing with the ice cream when it was drawn from the freezer. Slices of the firm-fleshed Golden Delicious apples were much more attractive in appearance in the ice cream than those of Baldwin. Baldwin slices were rough, did not hold together as well, and did not show up well in the ice cream. The slices probably do not increase the apple flavor but do produce a good psychological effect.

As far as we know, no one at the present time is preparing apple concentrate according to the method developed at this Station. Since ice cream manufacturers are interested in making apple-flavored ice cream and since such a high-quality concentrate should have many other uses, manufacturers should find a ready sale for it.

The apple juice was prepared by the ascorbic acid method described by Pederson (1947), and Holgate, Moyer, and Pederson (1948) and the concentrate was prepared by freezing concentration methods described by Pederson and Beattie (1947). These methods must be carried out as described in order to produce the type of concentrate desired. The ascorbic acid inhibits the action of oxidizing enzymes of the apple until the juice is extracted, deaerated, and pasteurized. In order to do this, the ascorbic acid is dissolved at the rate of six grams in a pint of apple juice, and

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sprayed on the pomace from one bushel of apples at the time or immediately after the apples are milled. Every effort should be made to decrease the possible effect of oxygen and oxidizing enzymes. In other words, one should not depend entirely upon the inhibiting action of the ascorbic acid.

The apples were kept as cold as possible, between 32° and 42°F. They were milled rapidly in a stainless steel mill, to avoid contact with copper or brass so common to many mills. The cheeses were built up immediately. The ascorbic acid solution was sprayed on the apple pomace on the cloth. In regular commercial operation, it may be necessary to blend the solution with the milled apples as they are being milled. As soon as the press was built the juice was pressed out, deaerated, pasteurized at 165° to 175°F. for 20 seconds, and then colled in 30 pound enamel-lined tins. The base of the hydraulic press used has been replaced with a slanting stainless steel box for cleanliness and so that the apple juice moves along rapidly.

### Juice Strained

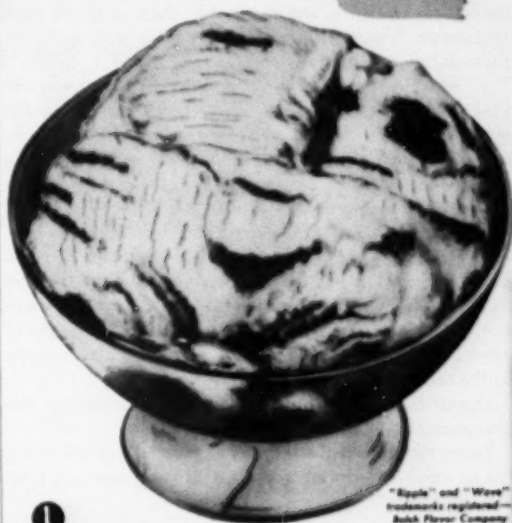
The juice was strained thru a muslin cloth but it was not clarified or filtered. After pasteurization and cooling, the juice was placed in 30-pound fruit enamel-lined tins for freezing at +12° to +14°F. Freezing was slow to allow large crystal formation. At that temperature the concentrated juice at the center of the can of juice remains in a liquid condition, but the side or ice portion is very solid. Separation of ice from concentrate depends upon the difference in freezing points of the two and was accomplished by draining and centrifuging.

Well-matured McIntosh apples out of cold storage were used since they have a good flavor and the low acidity desirable for an ice cream. The juice had an acidity of 0.32 per cent expressed as malic acid, a pH of 3.82, total solids of 13° Brix, and a viscosity of 3.1 compared with water as 1. McIntosh apples often have a higher acidity than this, but over a period of years acidities have varied from 0.28 to 0.45. The juice was concentrated to an average total solids of 46.8° Brix and a concentration of 3.6 to 1. Thus, 240 pounds of concentrate were prepared with a 4 per cent loss of solids in the 678 pounds of discarded ice fractions. McIntosh apples will yield about 60 to 65 per cent of juice and average about 1.05 specific gravity, or 8¼ pounds per gallon. The concentrate of 45° to 50° Brix will weigh between 10 and 10¼ pounds per gallon.

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3. Pederson, Carl S., and Beattie, Harold G. Concentration of Fruit Juices by Freezing. *New York State Agricultural Experiment Station Bul.* 727, 1947.

## 2 WAYS TO MAKE SALES TRIPLE by blending with **RIPPLE**



"Ripple" and "Wave" trademarks registered—Balch Flavor Company

**Sell FUDGE RIPPLE as a basic standard flavor, every month**

Yes... take a lead from hundreds of manufacturers throughout the country who are building sales with delicious, eye-appealing, taste-appealing Fudge Ripple Ice Cream, made from Balch's Ready-To-Use Ripple Sauce. Simple to use—just cool and pour into your own vanilla ice cream as it leaves the freezer.

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Ready-To-Use Ripple Sauces available for your monthly promotional features in Cherry, Butterscotch, Fudge, Black-Raspberry, Orange-Pineapple, and Chocolate Marshmallow. Send today for initial trial quantities.

**SPRING BUTTERSCOTCH  
FEATURE RIPPLE ICE CREAM**

We'll gladly send you information on making Ripple Ice Creams, and prices on our Ripple equipment.

**BALCH FLAVOR COMPANY**  
Adams at Fulton • PITTSBURGH 12, PA.

## Production Problems

—from page 36—

them to be run daily. This means that of necessity there must be stops in production. The more stops there are for whatever the reasons, the greater the unproductive time, the less the efficiency, and the greater the cost of the day's operations. Yes, the unproductive time is very expensive these days.

3. Make a survey of each operation in the plant from time to time because the volume of production demanded by an operation changes. It changes because of concentrated sales effort and advertising of the product, or because of the season of the year or some other reason. When the operation was geared to greater production, more labor was applied to it and this same number of people may have been carried on in the operation after the production demand decreased or levelled off. Some of these people (now actually extras) may become lost in the various operations in the plant, the effect of which is, increased labor cost of product, decreased efficiency, and to be sure, an increase in the total cost of product.

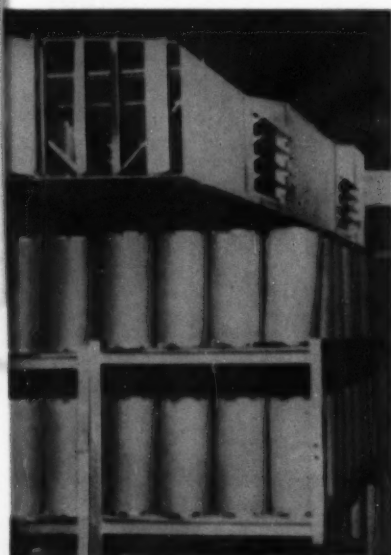
Operating efficiency is also effected absenteeism. Absenteeism should be reduced to a minimum.

Labor turnover in the plant is sometimes a problem and has its effect in reducing efficiency. It is expensive to train new employees.

A non-producing employee in an operation will certainly affect the efficiency of the job. Such non-producers must be removed from the operation. This is as true in the plant operation as it is on the farm where a non-producer is present in a herd. The slow moving and thinking individual in the operation slows up the entire operation, thereby decreasing the efficiency of it and again increasing the cost. I believe, however, we have very little of this problem in any of our plants.

Further, surveys are necessary to increase the overall efficiency of plant, and good sound thinking can be applied to reduce the total hours of operation by making some other changes. For example, a shipping office was manned and maintained in operation, three shifts, 24 hours total per day. (To be sure, a shipping office is a part of the total plant operation). This had been going on as long as anyone could remember. Someone got the idea that a simple change in the same schedule of shipments could be made and the new result is that one of the three shipping office shifts no longer exists. Thus the entire efficiency of this operation was stepped-up. I am convinced that the more we think an operation must go on as is, because it has always been done that way, the greater the reason to apply some concentrated study to change it and thereby increase the operating efficiency.

4. Study the machine and equipment requirements of an operation. Where labor rates, sometime back when, were



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Fortify with \_\_\_\_\_ oz. of Vanillin per gallon ☐

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lower, much lower than they now are, it was good business to apply manpower to the same pieces of equipment more than one shift per day and sometimes as much as time would permit in any one day exclusive of the cleaning and sterilizing time. Today the situation is different and machine requirements must be met for most plant operations for the single shift per day in order that better efficiency of operation and the same total cost or lower total cost of product can be acquired.

It might well be that the new 400 gallon per hour freezers are the thing instead of the old 150 or 300 gallon ones, for certain operations. And certainly, the new continuous automatic ice cream packaging machines are today doing a job in increasing the operating efficiency of the packaging operations in many plants.

There are, of course, such other machines as stick novelty mold washers, sticking machines, etc. that have been installed in many plants as a part of the novelty operation. These additions have increased the efficiency of these operations as well as having improved the quality of the product produced. There is a need for improved filling machines for this operation. There is special need for a real filler, to efficiently fill liquid into molds in the production of frozen flavored stick confections.

In studying the equipment requirements of an operation in the ice cream plant and determining the efficiency it may also be found that some certain machines or pieces of equipment are not producing as they should, that the cost

of operating such machines is too high. They may be worn out. They should be replaced, if efficiency of the operation is to be increased.

5. Good preventive maintenance of all pieces of equipment should be practiced.

It is evident that good efficient operation cannot be accomplished if something goes wrong with a machine during the operation.

By good preventive maintenance, I mean the continuous, thorough examining of the equipment during non-productive hours by competent mechanics and the immediate replacement of a worn part or parts to insure steady running of the equipment with no stops or failures during the operation.

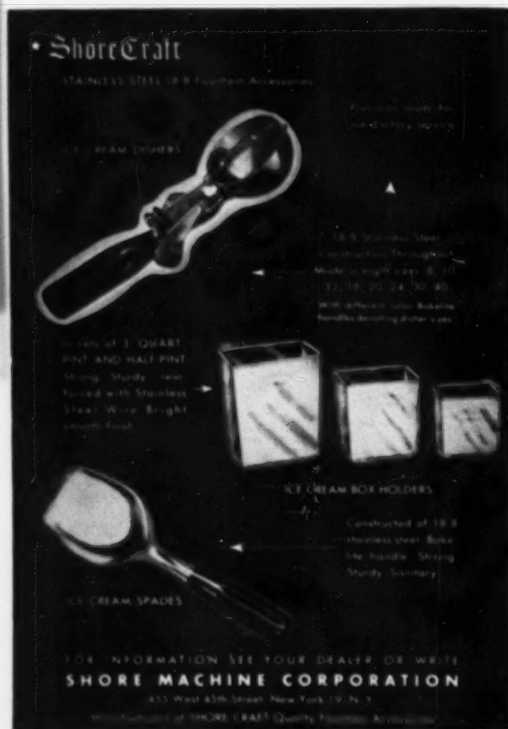
6. Many of the plants in which we are operating today have been built some time ago. The plant layouts were so engineered and equipped to handle the output of ice cream as the trend was in those days. Yes, some changes have been made in them since then, but most of the changes were in replacement of equipment and primarily because the old equipment wore out.

Then too, the war years, from which we perhaps have as yet not fully recovered, have not allowed the building of new plants and revision of many of the old ones. We seem to just be getting started on this program.

There has been a gradual evolution in the manufacturing of ice cream and frozen confections. There has been a change in the percentage of sale and consumption of bulk ice cream, package ice cream, and novelties, respectively to the total. Therefore, the plant layout and proper installation of equipment most certainly will have its effect in increasing the efficiency of an operation. I have in mind the one-floor plant plan layouts that are now being engineered in comparison to the same volume handling plant with operations on two, three, four or more floors. Such a one-floor plan operation can be better supervised. The arrangement of equipment installations will allow shorter hookups of sanitary lines. Elevators are not needed in the building to handle materials from one floor to another. Elevator operations in plants are time consuming and can be a factor in reducing operating efficiencies. The one-floor plan plant can be so arranged and engineered to allow a minimum of conveyor or dolly truck handling of dry storage items, such as cartons, sugar, etc. by installing a power lift truck pallet operation. Thus, more cartons, bags, of dry storage product can be handled at one time and with less effort.

The one-floor plan plants will have the hardening room on the same floor as the ice cream mix processing and ice cream freezing and packaging operation rooms and should be so planned as to allow at least two sides of the hardening room for access of product from freezers and packaging operations. At the same time the engineering plans should allow for well planned expansion.

I appreciate that I have merely introduced a few thoughts on the subject, but perhaps what I have said will serve as a starter to create more thinking and discussion on the subject.



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**ICE CREAM DIPPERS**  
Precision made for uniformity dipping

18-8 Stainless Steel  
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 ELLING

SELLING

# New Drug Store Survey Analyzes Costs, Income

**N**ATIONWIDE interest has been aroused in a factual and comprehensive analysis of drug store profits, published recently by the Paraffined Carton Research Council under the title "1949 National Drug Store Survey." It has been hailed as the first authoritative study of drug store departmental costs and income since the St. Louis Drug Store Survey conducted in 1931-32 by the United States Department of Commerce.

Basing its findings on eight case studies of independent neighborhood drug stores in Philadelphia, Birmingham, Milwaukee, Buffalo, St. Louis, Los Angeles, Wichita, and Springfield (Ohio), the 1949 survey was conducted by the Philadelphia marketing firm of Alderson and Sessions.

According to the report, more consumers specifically request packaged ice cream for take-home purchases today than hand-packed bulk. Tobacco, candy, magazines, and the soda fountain were found to still be the main source of traffic. High costs are said to be dictating prepackaged products. Separate packaged ice cream holding cabinets, open self-service cabinets at high traffic points, merchandising aids including price and flavor charts, and other sales and display material are being emphasized to hold the druggist's ice cream business.

Retail dealer costs, profits, and losses are analyzed in this comprehensive study of drug stores. A wide variation

is disclosed in the profits from department to department in the drug stores studies. The importance of analyzing store operations in each department, and determining which costs have increased and what can be done about them is illustrated in the survey.

Soda fountain operations in particular were found to develop serious losses unless careful cost control is exerted. The report shows that the fountain can still be a main source of traffic and sales but, what is more important, it can be a real money-maker, too. It shows that the fountain, along with tobacco, candy, and magazines, has a substantially higher turnover than other departments.

## "Do's and Don'ts"

On ice cream sales, the report stresses that druggists should plan store layout, and direct more of their advertising on take-home ice cream for adults, to capitalize on one of the most profitable departments. Factory-packaged ice cream was consistently found to be a high profit item in the drug store. The ease of handling and the high turnover of such a packaged item permitted expenses to be controllable and profits to be more closely calculated in advance.

A highlight of the Research Council survey was a com-

(Continued on page 77)

**SODA FOUNTAIN GROSS AND NET PROFIT AS A PER CENT OF SALES BY PRODUCT**

Store	TAKE-HOME						FOOD PREPARATION					
	Gross All Fountain	Net	Gross Packaged	Net	Gross Hand Packed Bulk	Net	Gross Novelty	Net	Gross Using Ice Cream	Net	Gross Not using Ice Cream	Net
Philadelphia	39.5%	5.2%	32.3%	25.6%	43.8%	23.9%	14.9%	-37.3%	41.1%	-11.2%	34.8%	-31.6%
Birmingham	41.9	14.2	33.4	22.3	—	—	32.0	7.9	44.4	6.5	49.9	11.9
Milwaukee	41.6	12.6	42.2	29.0	8.7	-21.0	30.5	13.0	30.9	—	5	50.6
Buffalo	35.7	-12.3	35.9	15.6	—	—	40.8	16.0	53.7	-1.6	19.9	-30.3
St. Louis	40.1	—	39.9	24.4	25.9	-2.7	21.3	0.0	33.4	3.9	58.3	-20.5
Los Angeles	45.3	-7.8	46.8	34.0	41.0	11.2	41.0	9.8	45.6	-13.0	46.1	-19.4
Wichita	30.0	-14.9	33.2	15.3	41.1	18.0	23.4	9.2	12.5	-40.9	37.7	-22.5
Springfield	45.3	17.5	37.2	29.0	38.9	24.0	23.8	13.9	34.1	6.1	64.4	19.1

## WHY IT'S THE FINEST BULK PACKAGE ON THE MARKET

- Firm, sturdy stock (.028 point) formulated especially for bulk containers, and made in Bloomer Bros. own mill
- Sparkling surface, satin smooth, insures top-quality printing
- Heavy wax treatment applied by an exclusive process
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- Slot and tongue closure for easy closing and positive lock
- Accurate measure, tested and approved
- Available in stock designs, or to your private specification

# The Best of the Big Ones for Bigger Sales for You



Gallon and half-gallon sales will continue to gain larger shares of the market. Here the quality of your package is more important than ever. The container must have sales appeal and sturdy strength as well.

Research in Bloomer Bros. laboratories made this better box possible. The right materials, modern equipment, strict quality control deliver its advantages to you intact. Samples will be sent at your request.



**BLOOMER  
BROS. COMPANY**  
NEWARK  
NEW YORK




---

Installation of ice cream cabinets in Minnesota co-operative creameries has resulted in making ice cream consumers of the farmers who make regular deliveries of milk and cream to the centers. Here's how Cresthaven Farms succeeded in creating a new outlet for the sale of ice cream.

---

## How To "Plant" Cabinets

**C**OMMON sense applied to a unique idea for creating unprecedented ice cream sales is responsible for the success story of Cresthaven Farms, Inc., of St. Paul, Minnesota.

The tale begins with the purchase in January, 1948, by C. M. Peterson, former Kraft Foods Company executive, of a small wholesale ice cream company in Zumbrota, Minnesota, a community of 1,500 population about twenty miles north of Rochester, Minnesota. The purchase involved some 40 retail accounts and an old building.

### Good Idea and Sound Policies

The manner in which this small beginning was mushroomed into a business that today looks back on two years of fantastic percentages of business increases without benefit of "raids" on the dealers of competitors, is evidence of what can be done with a good idea and sound policies.

Mr. Peterson's first step was to convert the old building into a modern ice cream plant with modern equipment. Then he appointed Newell Lundquist, with Marigold

Dairies in Rochester, Minnesota for nineteen years, as production manager and to a position on the board of directors. Mr. Lundquist absorbed the responsibility of developing the company's product into the high quality eighty-five per cent overrun, forty per cent total solids item it is today.

Then Mr. Peterson's big idea began to blossom out. He knew that farm families in general are prosperous, and that they are frequently larger than city families. He knew, too, that they are hearty eaters and that they generally have facilities for storing large quantities of ice cream. It was a beautiful picture of practically untapped sales territory for an ice cream manufacturer. But the question was how to reach those comparatively isolated farmers who were potential consumers.

The answer was easy—if you happened to think of it, and Mr. Peterson did. The co-operative creamery was the logical outlet for his wares. Thousands of Minnesota dairymen hold membership in co-operative creameries and deliver their milk and cream regularly to centrally located creameries.

Cresthaven Farms, Inc., went to work convincing the creameries that they should become ice cream dealers as a

matter of service to their farmer customers. Installation of trial cabinets and the sales that promptly resulted convinced the most skeptical creamery managers. The outcome was a foregone conclusion.

The farmers bought ice cream, and have been buying ever since—not by the pint or quart, but by the half-gallon and gallon. Sales run as high as eighty-five per cent gallons on some Cresthaven routes. On others the proportion may drop to fifty per cent gallons, but in any event, the proportion of large unit sales piles up gallonage.

Eight Cresthaven Farm routes over which ply 800 gallon capacity refrigerated trucks as well as two semi-trailer carriers of 1,200 gallon capacity, now serve approximately 175 co-operative and independently owned creameries. The territory is a narrow strip extending from the Iowa border line north to 200 miles from Brainerd in central Minnesota. Some of the creameries are in small towns, some are far from centers of population, but the bulk of sales are to farmers. Cresthaven Farms aims its promotion at the farmer, with the creamery passing the ice cream along to the farmer with his cream checks.

Large pack-away cabinets make everything easy for the creameries, and must stress is laid on delivery service that keeps the cabinets well supplied at all times. The delivery is simplified by the fact that the creamery outlets were established in a closely knit pattern for easy coverage. Flavor signs above the cabinets help the farmers vary their ice cream diet, which, it has been found, they like to do. A

gallon of one flavor one day, a gallon of a different flavor the next time, seems to be the general pattern and practice.

A start in the direction of introducing cones and home dippers into farm homes has been made by making both available for purchase at the creameries.

### Business Marches On

Business marches on for Cresthaven Farms, Inc. Construction work is under way at the Zumbrota plant to enlarge it and double its capacity. A plant is being equipped at Onamia, in the heart of Minnesota's far-famed lake resort country for the purpose of providing many resorts in the area with Cresthaven's ice cream. A cash-and-carry operation has been opened alongside the company's headquarters in St. Paul, where an 8,000 gallon minimum supply of ice cream is maintained in a warehouse at twenty-six below zero temperature, for the benefit of those who like to buy at wholesale. Super markets and other stores are taking advantage of the cash-and-carry idea. Where volume or conditions warrant, the company will deliver from the warehouse in a low temperature truck.

The success of Cresthaven Farms in two sensational years is simple arithmetic: the sum total of an idea, plus the best in equipment, plus a high quality product, plus a good merchandising program.

And the future of Cresthaven is merely a matter of multiplication.



Chocolate Products in the Great  
Dutch Tradition

**VAN LEER**  
CHOCOLATE CORP.

Manufacturers of • quality coatings for ice cream bars  
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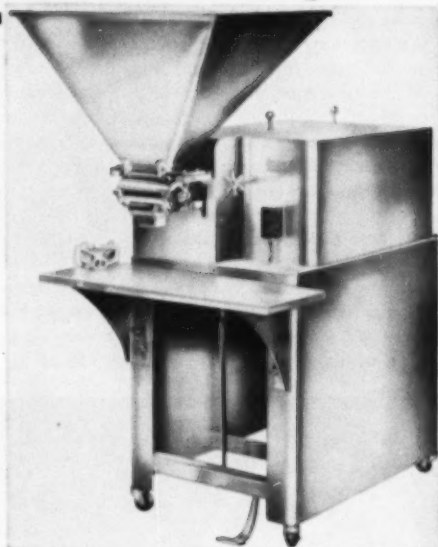
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# *The Improved* **BAGBY D-3** **ICE CREAM FILLER**

Speedy • Accurate  
Versatile • Economical

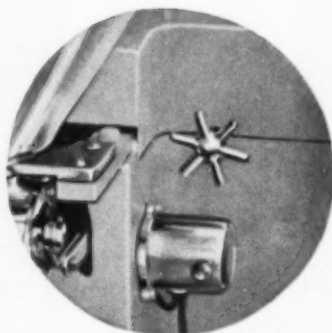
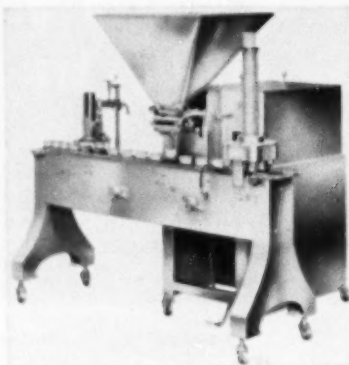
Always the leader among ice cream fillers, the Bagby D-3 now features improvements designed to cut your filling costs to an absolute minimum . . . improvements that broaden your profit margin through speedy, precision filling of large volumes. The improved Bagby D-3 Ice Cream Filler fills single flavor, two flavor or three flavor containers of any shape or size . . . from an ounce to a quart . . . at each filling stroke . . . quickly and accurately without overrun loss. Single flavor cups filled 2 or 3 at a time. Fancy moulded centers and streaked ice cream accomplished with special outlet attachments. Amount of fill regulated by hand wheel on **FRONT** of machine. Stainless steel, cork insulated hopper holds 18 gallons in three 6-gallon compartments. Easy to operate . . . easy to clean.



## **MODEL D - X CUP ATTACHMENT**

*Converts Model D - 3 Into Fully  
Automatic, High Speed Cup Filler*

Maintains all the utility of the Model D-3 and adds high speed automatic filling and capping. Fastens to front of D-3 and is driven by a take-off drive from filler. Cup dispensed from vertical stack onto intermittently moving stainless steel conveyor chain. Measured discharge fills cup when elevated at outlet. Cups are capped by Bagby Capper. All sizes of capping heads for various size cups fit interchangeable capper mounting. If supply of cups is exhausted, no filling takes place.



### **ONLY ONE ADJUSTMENT**

*. . . and it's on the front!*

The setting for quantity is the only adjustment to be made on the Bagby D-3. It's regulated by one simple screw handle conveniently located on front of filler. No need to stop machine or empty hopper.

*Special Outlets Available for* **BAGBY D-3** Write To Us About Special Filling Problems.

**BAGBY & COMPANY**

**1827 BENSON AVENUE, EVANSTON, ILLINOIS**

CANASTA ENTHUSIASTS—of which there are many—flocked to the thirteen stores operated by Miller Dairy Farms of Eaton Rapids, Michigan, when the firm featured its "Canasta Sundae." The response to this promotion could be attributed to the unique ice cream concoction on which the program was based, and to the free set of Canasta rules given with each sale of a "Canasta Sundae." A typical point-of-sale poster which called attention to the ice cream and the rule book is reproduced at the right.

## "CANASTA SUNDÆ" CASHES IN

WITH the Canasta Craze sweeping the forty-eight states, a clever ice cream manufacturer in Eaton Rapids, Michigan, came to the conclusion recently that he could reap a veritable bonanza if he could convince the card players in his area to wind up each Canasta con-

clave with a visit to the ice cream store for refreshment. He envisioned a tie-up of his product and the nation's newest form of recreation, and gave considerable thought to the development of a promotion which would enable his company to cash in on Canasta.

The result was the "Canasta Sundae." As Bryce E. Thomson, Stores Supervisor of Miller Dairy Farms, Inc., explained it, this unique item was timed to cash in on the publicity which the new card game was receiving throughout America. He said that his firm features one special sundae at regular intervals, and that the "Canasta Sundae" was one of the most popular successes ever to appear on the Miller Hit Parade.

### Newspaper Ads Used

Visitors to the Miller Farms stores—such as the outlet pictured on Page 76, located on Maumee Avenue in Fort Wayne, Indiana—came face to face with a collection of point-of-sale posters which urged them to sample the newly-created sundae. Chances are, incidentally, that many patrons of the Miller stores had heard about the "Canasta Sundae" long before they seated themselves at the fountain, for one phase of the promotion dictated the use of newspaper advertising to call attention of the public to the unique ice cream dish. Both the newspaper ads and the point-of-sale material as well as appropriate menu clip-ons called attention to the special offer of a free folder con-





MINERAL SALTS

*First* IN QUALITY

*for*

ice cream

chocolate milk

buttermilk

cottage cheese

half and half

**HORNER SALES CORPORATION**

PITTSBURGH 8,

PENNSYLVANIA

taining the latest Canasta rules to be presented to each person purchasing a "Canasta Sundae."

This free offer was the high spot of the promotion, according to Mr. Thomson. He pointed out that many customers visited the Miller stores and bought the featured sundae just for the sake of obtaining a copy of the Canasta rule book.

The rule folders were purchased from the Whitman Publishing Company of Racine, Wisconsin, and contained the official rules of the Association of American Playing Card Manufacturers with the latest revisions. Cost of the folders was slightly under one cent each, and 7,000 of them were purchased for distribution to the thirteen Miller stores. A local printer imprinted the Miller trade-mark on each folder, thereby affording the ice cream company added advertising and publicity value.

Copies of these folders, and replicas of playing cards and jokers decorated the walls of the Miller stores during the promotion, which began late in December and extended into January. Each and every customer of a Miller Dairy Farms store was Canasta-conscious and ice cream-conscious during and after the campaign.

Of course, the ice cream concoction on which the program was based, represented a good value for Miller Dairy's customers. The "Canasta Sundae" was made in a round sundae dish, and consisted of three #24 dips of butter-pecan ice cream, topped with a ladle of hot fudge, about 1/3 of a banana (sliced), a soda spoonful of crushed nuts, whipped cream, and a cherry. Retail price was 35c.

To make certain of uniformity throughout the thirteen stores operated by the company, mimeographed instructions with drawings and a formula were sent to the store managers prior to the launching of the promotion. Merchandising procedures were outlined in these memorandums.

Results of the Canasta promotion proved highly gratifying to the Miller Dairy Farms organization. As Mr. Thompson put it, "We sold a great many of these sundaes, and won quite a few new customers as a result of the program. We're extremely satisfied."

All of which was to be expected, since the Miller Canasta-ice cream tie-up represented a fine example of what originality and sound merchandising can do to aid and improve an ice cream manufacturer's business.



## Drug Store Surray

—from page 70—

pilation of "Do's and Don'ts" for druggists who want to make more take-home money. Listed as "Do's" were the following dictums:

1. Strive for well balanced and clearly-defined departments. Check the operations of each department carefully, regularly, and separately. This means, too, that you'll have to pay special attention to your book-keeping.

2. Concentrate equally capable management on Fountain and Prescription departments. Don't be afraid to pay a trained fountain manager as much as a pharmacist—in proportion to the earnings of the department.

3. Evaluate your Fountain for what it is—a source of substantial profits when properly managed or easy losses when neglected.

4. Feature factory-packaged ice cream—the product on which every store made a good profit.

5. Examine the profit possibilities of each department from the standpoint of returns on investment in inventory. Analyze your potential for each department. You may find too much money invested in one department and not enough in another.

Those practices which retail druggists should eliminate were also listed in the report. Classified as "Don'ts" were these rules of thumb:

1. Don't shrink your gross below operating costs and depend on turnover to pull you out. It isn't necessary and certainly not profitable.

2. Don't count net profits in terms of gross margin. Watch your operating expenses because some of your favorite high gross items may be turning in a net loss.

3. Don't expect the soda fountain to run itself. It won't. You have to run it yourself or hire a good manager.

4. Don't let your daily prescriptions go below a reasonable minimum. You'll enjoy a very good net profit on prescriptions if you keep the daily volume up, plus

the extra value of the professional appeal in a strong Prescription department.

5. Don't fail to give your store the individual personality and friendly feeling Americans have long expected and still need from their druggist. But good management must go with good personality to achieve maximum profits.

Harvey H. Robbins, Secretary of the Paraffined Carton Research Council, expressed the belief that if ice cream manufacturers and their salesmen make effective use of the material contained in the 1949 Survey, total ice cream sales, bulk and packaged, will be measurably increased.

Agreement with Mr. Robbins was voiced by Paul A. Taylor, of the Fresh Milk and Ice Cream Division, Carnation Company, Los Angeles, California. In a talk presented during the annual meeting of the Research Council on February 14, Mr. Taylor declared:

"This information can be of far-reaching significance if fully utilized by the sales departments of all ice cream manufacturers. The detailed cost and profit breakdown of each department in the drug store in eight typical test markets throughout the United States can be of inestimable value to every ice cream company in working with their drug store accounts.

"The profit potential of the fountain department, revealed in this report, can be a tremendously motivating force if properly used by ice cream salesmen and merchandising men. The ice cream manufacturers, through their sales departments, should translate this information into positive action with all their ice cream dealers."

In describing some of the procedures effected by the Carnation Company to aid retail ice cream dealers in building greater volume, Mr. Taylor pointed out that the information developed by the Research Council survey re-emphasizes the Carnation Company's belief that the ice cream manufacturer must be prepared to assist his dealers in operating problems, as well as merchandising assistance.

The Paraffined Carton Research Council, representing carton manufacturers for the ice cream and other industries, has been carrying on over a period of years a regular program of research and education on packaging and merchandising to help its customer industries.

NATIONALLY  
ADVERTISED

*Sweetheart*  
ICE CREAM  
JUNE FEATURE FLAVOR

**G. P. GUNDLACH & CO.**

"Servants to the Dairy Industry"

1201-07 WEST EIGHTH ST.

BOX "A"

CINCINNATI 3, OHIO

Canadian Representative: H. F. Pierce, 491 Dufferin Ave., London, Ontario

## YOU Can Tie-In With This Giant Program

Domination • Posters • S.E. Post Reprints • Window Displays • Counter Cards • "Sweetheart" Symbols • Weatherproof Truck Displays • Specially Designed Cartons • Newspaper and Radio Material Available

Voluntary Participation . . . No Regimentation!

Get Data's N-O-W!

WATCH FOR OUR  
ADS IN THE  
SATURDAY EVENING

**Post**



# Half-Gallon Honeymoon

BY P. C. SCHOONMAKER

*Dairymen's League Cooperative Association  
Syracuse, New York*

**D**URING the past two years, a great deal of interest has developed in the manufacture and sale of the bulk package of ice cream for home consumption. Dairy Lea has now been distributing the gallon package for about two years and the half-gallon for a little over a year. We feel that our efforts in promoting both of these packages have been amply repaid.

During the months of December, 1949, and January of this year, we ran a campaign for the purpose of promoting the bulk package in both the gallon and half-gallon sizes. We are convinced that once ice cream is in the refrigerator in the home, it is a good competitor to all other types of desserts. It is convenient, easily-served, and a favorite dessert for young and old and once you can place this package in the refrigerator it will be quickly used. The modern American housewife is becoming more and more conscious of time, and because of the ease of serving ice cream, it is popular with her.

## Good For Children

Children coming home from school, or between meals, if given a choice, are almost sure to choose ice cream in preference to soft drinks, candy, or other snacks, and every mother knows that ice cream is not only economical and tastes good but it is good food for her child to eat. Another reason for promoting the sale of the bulk package was that in the rural areas large numbers of home freezers have been installed during the past few years and we know that these farm and rural populations are good prospects

for this type of package. In our cities thousands of people have bought new refrigerators in the last few years with ample storage space for frozen food and ice cream. They, too, are good prospects for the purchase of ice cream in the bulk package.

We decided for our first bulk package campaign to use

**A BOX OF  
KREEM CONE KUPS  
FREE  
WITH EVERY  
PURCHASE OF**

*The Perfect  
Combination*

<b>DAIRYLEA ICE CREAM</b>	
1/2-Gallon	\$1.10
Kreem Kups	.20
Value	\$1.30
Both for only \$1.10	

**DAIRYLEA**

**KREEM  
CONE  
KUPS**

*So Good and Cheap at Home*

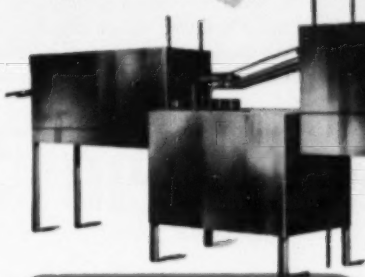


**OUCH!**

## Mistakes are Painful

Mistakes in Frozen Confection Production can be painful, too!

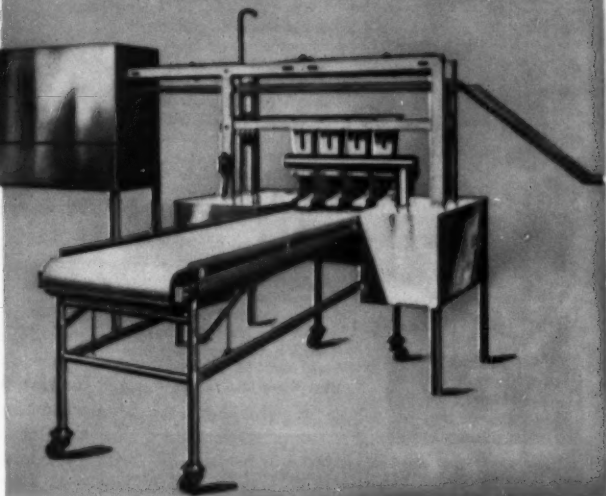
**VITAFREZE** eliminates costly plant trouble... speeds production... **BRINGS IN MORE DOLLARS PER HOUR OF OPERATION!**



### The New VITAFREZE Model D Fully Automatic Dipping and Bagging Machine

**Dips and Bags up to 1800 dozen-per-hour**

New streamlined, simplified design completely automatic with Thermo-controlled dipping unit—all stainless chill tunnels... detachable conveyor. Strong, sturdy, dependable—few moving parts!



Vitafreeze Supercold Brine Tanks are *sensationally successful* all over the country. If you have a brine tank problem, *write, wire or phone TODAY* for full information!

\*Trade Mark VITAFREZE Reg. U. S. Patent Office

# VITAFREZE

*Equipment, Inc.*

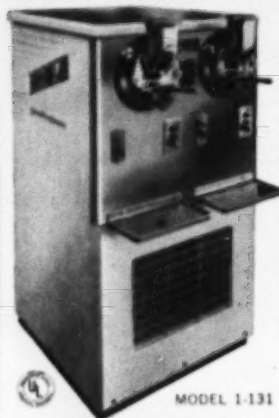
6601 EASTERN AVENUE SACRAMENTO, CALIFORNIA  
Sales Representative - Joe Lowe Corp., New York City

Let Vitafreeze supply you with pneumatic mold pushers, automatic mold fillers, carton sealers, printers and counters, defrost tanks, conveyors and work tables. Vitafreeze manufactures automatic equipment for all size plants.

## the FOUNTAIN FREEZER

*that Pays for Itself*

## From EXTRA PROFITS



MODEL 1-131

17 years of  
SWEDEN leadership PAY OFF  
in profitable advantages  
to YOU

**QUALITY ENGINEERING**—SWEDEN'S extra-strength gear case and V-belt drive, simple two-piece dashers and many other superior features have won technical acclaim. SWEDEN is UL approved, too.

**VARIETY OF MODELS**—SWEDEN presents the most complete line of ice cream freezing dispensing equipment ever offered by any manufacturer. There's a model to meet the need of every fountain operation.

That's SWEDEN. Your only investment is the down payment. SWEDEN'S sensational volume and profit-building features do the rest. Here's the Proof:

Selling as little as one or two gallons per day . . . you can stretch present profit margins by dispensing soft ice cream, frozen custard and other popular specialties *fresh* from a SWEDEN Speed Fountain Freezer. With less cream weight-per-serving required and elimination of hard ice cream shrinkage, you immediately reduce food costs an average of 50%. Eliminating costly dipping, scraping and handling . . . you slash labor costs 50% and more! Then SWEDEN'S finer-flavored soft ice cream and frozen custard start building volume that keeps your cash register ringing.

**ADVANCED DESIGN**—Years ahead sturdy construction, simple, automatic operation, ease of cleaning and economy-of-space design make SWEDEN the most profitable freezer to own and operate.

**VERSATILITY**—Popular products of delightful taste and consistency are dispensed by SWEDEN Speed Freezers with equal efficiency: Soft or hard ice cream, any flavor, frozen custards, sherberts, frosted shakes and malts.

## SWEDEN'S SPEED FREEZERS

*the*  
FOUNTAIN  
FREEZER

For more information on the fastest self-liquidating investment in the history of fountain operation, write today to:  
**SWEDEN FREEZER MANUFACTURING CO.**  
DEPT. A-1 • SEATTLE 99, WASH.

the promotion developed by the Maryland Baking Company in which with each half-gallon of ice cream sold, a dozen of the "Kreem Cake Kups" are included. As our price was a little higher than our competitor for the bulk package, we decided that for the small amount that these cones cost we would give them free as an inducement to get people to try the bulk package.

To promote this idea we used two newspaper ads in each market, and mailed penny post cards to about twenty-five per cent of the homes in the cities which we serve and mailed quite a large number to the rural areas. In each ad and on each card was a coupon which when filled out and taken to a store where Dairy-leaf ice cream was sold could be redeemed for a dozen cones with the purchase of a half-gallon of bulk ice cream. Stores also had coupons on their counters which they could hand to customers and also place in packages being delivered to the homes. We used a considerable number of spot announcements on the radio. We decorated many windows of our accounts, and placed counter signs and back bar and window posters in practically every account that could possibly sell this bulk package of ice cream.

As an incentive to our employees we set up merchandising prizes for the salesmen. These prizes were not large, but enough to arouse and keep their interest.

### Quotas Set

Quotas for all branches were set based on a uniform formula, taking into consideration the number of gallons sold during the same period last year, the number of customers involved, and the percentage of those which might sell the bulk package. The quota was set at 210 per cent more than the previous year's sales for the same period. Each branch furnished a report of their sales twice each week and was given a report twice each week, showing the standing of all branches. Along with the reports going back to the branches were "pep up" letters and other information to keep everyone enthused.

The results for the two months period were that we had sales amounting to 219.7 per cent more than the previous year's sales, or nearly ten per cent over what was considered a very high quota.

When we were first considering the campaign, some members of our organization felt that while we might be successful in building up the sale of the bulk package, we would cut down the sale of our pint package. This, we are glad to report, was not true, for while the sale of our bulk package increased as described above, we had increases in our pint package in every branch, ranging from fifteen to thirty-two per cent, with all branches showing an average increase of eighteen per cent.

In our thinking, this proves that the bulk package is one of our best packages to compete with the hundreds of new desserts which are constantly being sold to the American housewife. We are confident that with promotions of this type the ice cream manufacturer can get his share of this huge market.



## DISA Elects Wallace President

**K.** L. WALLACE of Walker-Wallace, Ltd., Toronto, Ontario, Canada, was elected President of Dairy Industries Supply Association as the group's 31st Annual Meeting came to a close in Chicago's Hotel Congress on March 17. More than 300 representatives of member companies attended the two-day conclave.

Mr. Wallace, the first person from a foreign country to be named DISA President, succeeds Ray E. Olson of the Taylor Instrument Company, Rochester, New York, who has held the office for the past two years.

R. D. Britton, Wisner Manufacturing Company, New York, was elected Vice President, and Ralph L. Young of the Sharples Corporation, Philadelphia, was re-named Treasurer.

Elected to fill vacancies on the DISA Board of Directors were R. E. Cairns of Waukesha Foundry Company, Waukesha, Wisconsin; Gordon Lamont of Lamont, Corliss & Company, New York; E. B. Lehrack of the Creamery Package Company, Chicago; D. G. Colony of Manton-Gaulin Manufacturing Company, Everett, Massachusetts; S. E. Crofts of Batavia Body Company, Inc., Batavia, Illinois; and Messrs. Wallace and Young.

Dr. Sumner H. Slichter, noted economist of Harvard University, in a major address before the supply association, predicted that a period of "contraction" might be expected in the nation's business beginning shortly after the third quarter of 1950, or perhaps a little later. This contraction, he said, would likely be caused by the transition of the national economy from "catching up," while

business is still trying to satisfy pent-up demands caused by war shortages, to a "normal" period when the supply of goods on hand is largely determined by current demand.

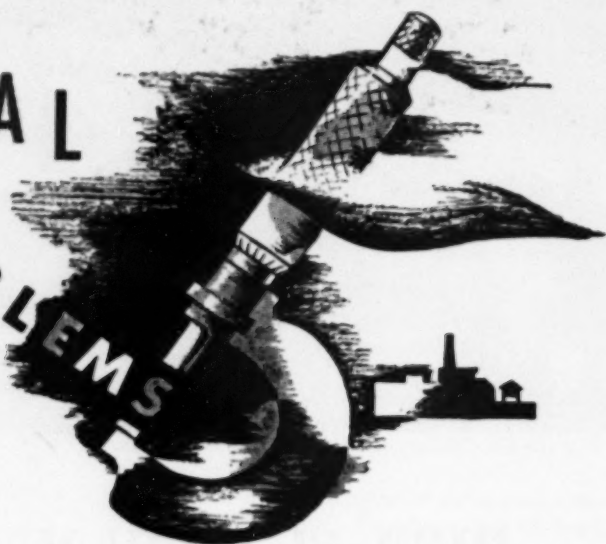
In a question-and-answer period which followed his address, Dr. Slichter attacked the tendency in some industries to destroy senselessly and needlessly certain natural resources. He said that in the next thirty years, industry would use more raw natural resources than have been used by mankind since the beginning of time, and that some sort of conservation measures must be applied. Although opposed to government intervention in many fields, Dr. Slichter suggested that here, perhaps, was an area where some sort of government supervision might be desirable.

At the 31st Annual Banquet, held the evening of March 16 at the Hotel Congress, committee reports were presented by industry leaders from all sections of the United States and Canada. It was announced that the Dairy Industries Exposition, one of the largest industrial shows in the world, will be held in 1952 in Chicago. The Exposition, a bi-ennial fair sponsored by DISA, will be held this year in Atlantic City, from October 16 to 21.

George E. Wallis, President of the Creamery Package Manufacturing Company, of Chicago, was presented an honorary plaque in recognition of his outstanding contributions to DISA and, through DISA, to the entire dairy industry.

The meeting was concluded with the staging of an intricate, area-locations lottery for booth space at the coming Dairy Industries Exposition.

# TECHNICAL PROBLEMS



By DR. C. D. DAHLE  
Technical Editor, Ice Cream Field

## Checking French Formula?

We are making a 14.5 per cent fat ice cream and are doing very well selling it. Just recently we made a small amount of French mix, slightly over one hundred gallons. It seemed real good to me but I think too many solids in comparison to the high fat. I had no way of telling what serum solids and total solids to use with 19.3 per cent fat so I am writing you to find out your opinion as I know that you are the person who would know. I am going to list the chart of the mix that I made recently.

	Weight	Fat	S.S.	T.S.
40% cream (50 gal.)	410.00	164.0	22.14	186.14
4% milk (27 gal.)	229.33	9.17	19.82	28.98
32% cond. skim (13.33 gal.)	114.66		36.69	36.69
Sugar	133.33			111.33
Stabilizer	2.33			2.23
Eggs (fresh frozen)	30.00	3.00		30.00
Skim milk powder	9.00		8.73	8.73
	928.55	176.5	87.38	426.10

I also use about three gallons of water to mix the stabilizer. I realize this will bring the above percentages down slightly.

I wonder if you would look this over as I don't know if I have the proportion of fat right with my solids and total solids. I would appreciate very much hearing from you on this matter.

## Answer

I am very glad to have your letter and to note that you are making a very fine quality of French Ice Cream. In going over your figures I find the mix tests 19 per cent fat, about 9.5 per cent serum solids, 14.1 per cent sugar, and about 1.25 egg yolk solids. You list under total solids in your letter 30 pounds of egg solids

from 30 pounds of fluid egg. You really have only about 13.8 per cent, or rather pounds, of egg solids in 30 pounds of frozen fresh eggs.

Nevertheless, this should make a very high quality French ice cream but really does not need to have so much butterfat.

I think you could save a lot of money by dropping the fat to about 16 per cent, leaving the serum solids where they are and increasing your sugar to about 16 per cent. This would make a more palatable French ice cream and save you considerable money.

I, of course, assume that you are adding some yellow color to this and also that you are using a little more vanilla flavor in this than you would in the regular.

## 100 Per Cent Overrun?

Can you recommend to be a 10 per cent butterfat mix that will give a 100 per cent overrun to be made in a direct expansion batch freezer?

We have an ice cream account that wants a mix to get this 100 per cent and as we use continuous freezers and a 12 per cent butterfat mix, we are having trouble getting his overrun to the 100 per cent. We are using stabilizers and no egg yolks. We would appreciate your suggestion on this matter, stating whether we can add egg yolk to this special mix and get the desired overrun.

Any information on this will be appreciated by me. I have one of your books, which I use persistently, but I cannot find anything in this book which works for a 100 per cent overrun. We ourselves use only a mix for a 99 per cent overrun.

## Answer

You can make practically any ice cream whip to 100 per cent overrun if you have in it egg yolks or some of the emulsifying agents that are now being sold. One-half of one per cent dried egg yolk or about 0.1 per cent of some of the emulsifiers would, I am sure, enable you to take 100 per cent overrun on practically any mix that you wish to use.

## Use of Baking Soda?

In making our ice cream mix, if the acidity runs above 20 points our creamery man has been using baking soda. Several members of our firm seem to object to baking soda because of its possible taint and flavor.

Is 27 or 30 point acidity high enough to warrant the baking soda? What faults can you find with a neutralizer and at what high point in acidity would you suggest to use a neutralizer. All products used in making the mix are fresh.

### Answer

Quite a number of ice cream plants standardize the acidity if it goes above a certain point. Twenty-hundredths of one per cent (0.20) acid is not particularly high and would not require any neutralization. Some do not standardize the acidity until it reaches 0.25 per cent. This all depends on the serum solids content of the mix. The normal acidity of 10 per cent serum solids ice cream is about 0.18 and for 11 per cent of serum solids is 0.198, so if any acidity is above that point, some times it is reduced back to these particular points.

It is not well to reduce the acidity to a point lower than the normal which I just mentioned above. If acidity is reduced much below the normal point, then you will get off-flavors. You will also get a neutralizer flavor if you have to add a great deal of neutralizer. This probably would be the case if your acidity was up to 0.3 per cent and you brought it back to 0.19 per cent. In this case you may have a neutralized flavor.

If the mix is sour, then of course it would be beyond redemption and neutralization or anything else would help. Standardization of acidity should not be practiced to cover up a sour taste.

If you notice that your mixes have very thick viscosity after homogenization and you are using gelatin as the stabilizer, then standardization of the acid will do some good. Otherwise, it is not necessarily a benefit.

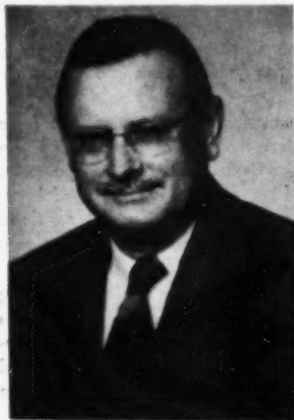
## Loss by Evaporation?

Could you please advise us as to the loss by evaporation in a 4770 pound batch of ice cream mix?

### Answer

I can't tell you exactly how much loss by evaporation there would be in a 4770 pound batch of ice cream mix. We kept account of the amount of mechanical loss in processing 300 gallons of mix. We ran these trials for several months, and we found losses of 0.75 up to 1.5 per cent. This includes spillage as well as evaporation.

I can't give you the figures for just evaporation due to pasteurizing.



Address your technical questions to Dr. C. D. Dahle,  
5% Ice Cream Field, 19 W.  
44 St., New York 18, N. Y.

## ARE YOU MASKING THE FINE FLAVOR OF

# Your Ice Cream?



**Stabilizers, too, affect flavor.**

**Choose yours with the same care you select other ingredients**

Because of its own mild flavor and lower rate of usage, Krageleen will not mask the flavor of your ice cream. Krageleen helps produce just the right texture, enhances flavor, improves quality, protects your profit.


See for yourself why so many ice cream makers are switching to carrageenin-based Krageleen. Order a barrel today from Phenix Pabst-ett Company, Dept. K-11, 460 E. Illinois St., Chicago 90, Ill. And for helpful information on ice cream making, write for the booklet "Hot Tips on a Cold Subject."

## KRAGELEEN

A finer vegetable stabilizer for ice cream

A **KRAFT** PRODUCT

Distributors: Phenix Pabst-ett Company



## Kentuckians Re-elect Officers; Finneburgh, Hibben Speak

**A**LL officers of the Dairy Products Association of Kentucky were re-elected at the 25th Annual Meeting of the organization, held March 8 and 9 at the Hotel Brown in Louisville.

They are: President, W. T. Tway, Plainview Farms Dairy, Louisville; 1st Vice President, L. J. White, The Beatrice Foods Company, Louisville; 2nd Vice President, Mark Fuller, French Bauer Co., Cincinnati, Ohio; Treasurer, P. K. Hollenbach, Buttermann Ice Cream Co., Louisville; Secretary, F. T. Flynn, Louisville, Kentucky.

Re-elected to the board of directors were: C. H. Carpenter, Cudahy Packing Co., Harrodsburg; F. V. Cure, Sugar Creek Creamery, Louisville; K. F. Dietiker, Pet Milk Company, Bowling Green; Charles O. Ewing, Oscar Ewing, Inc., Louisville; J. T. Satchwell, Merchants Creamery Co., Cincinnati, Ohio; J. N. Stark, Ewing-Von Allmen Co., Louisville; C. A. Williams, Armour Creamery, Louisville. Newly-elected board member is W. W. Marple, Model Farms Dairy, Louisville, replacing A. B. Sawyer, Jr. J. O. Barkman, University of Kentucky, Lexington, was reelected advisory member of the board.

An attendance of approximately 400 marked the most successful convention in the association's history.

Speakers included M. L. Finneburgh, Liquid Carbonic Corporation; Robert C. Hibben, Executive Secretary of the International Association of Ice Cream Manufacturers; Senator Virgil M. Chapman; Owen M. Richards, General Manager of the American Dairy Association; Ray Alberts, American Butter Institute; and Ed Gaumnitz, National Cheese Institute.

In 40,000 drug store fountains across the nation, the druggist can "stand alone" in his neighborhood as the best merchandiser of ice cream and other dairy foods, regardless of the equalizing factor of "fair trade" practices in the other departments of his store. The druggist can create better service, finer finished products more comfort for the customers, the last word in sanitation and "selling atmosphere."

Those were the opportunities for selling more ice cream as outlined by Mr. Finneburgh. He blamed lack of planned selling effort as part of the answer why ice cream production figures have dropped from 750 gallons in 1947 to about 530 million gallons in 1949.

"Consumers eat twice as much ice cream as they did ten years ago" said Mr. Hibben. "Ice Cream sales in 1939 were 1,218,688 quarts; in 1949 the industry sold over two billion quarts."

"In 1949, six quarts of ice cream were consumed per person in Kentucky, as compared to three quarts in 1939. Ice Cream was classified by the Federal Government in the seven basic food groups along with milk, butter and cheese."

"Vanilla ice cream is still the most popular flavor, constituting over 50% of the sales. However, 180 other flavors seek favor with the American public. Chocolate and strawberry are second and third, but compete tremendously with cherry-vanilla, and in many markets cherry-vanilla today is running ahead of these two popular flavors."

In these challenging times the dairy industry must focus its forces on changing the buying public's needs into wants, Mr. Richards told the meeting.

He enumerated five problems facing the dairy industry: (1) a feeling among consumers that the price of dairy foods is too high; (2) butter consumption down from 17 pounds per capita to about 10 pounds; (3) large government holdings of butter and powder threatening consumption and prices; (4) the threat of substitutes selling under false colors and (5) the keenest competition in history for the consumer's dollar.

To meet these problems Richards names quality, advertising and merchandising as the "big three" in selling "our way to success." This is the day, he contended, that calls for an awakening to the trends and an arousing to new challenges. Watchful waiting . . . grumbling . . . protesting . . . won't arrest the surge of change or capitalize new-born opportunities, he said.



WEEKS OF planning precede the gigantic merchandising and public relations campaign of June Dairy Month, now in its 14th year. In the above picture The Sponsor, Program, Merchandising and Public Relations Committees are represented in a planning session at the Hotel La Salle. They are, left to right: P. M. Kemper, Bowman Dairy Company, Chicago, representing Milk Industry Foundation; Robert C. McKinley, The Dairy Council, Inc., Philadelphia, Pa., representing Affiliated Dairy Council Units; William Lovell, Oak Park Ice Cream Company, Oak Park, Ill., representing National Association of Retail Ice Cream Manufacturers; E. M. Warder, National Association of Retail Ice Cream Manufacturers, Toledo, Ohio; Anthony G. Kainz, Kainz Dairy, Chicago, representing National Association of Retail Ice Cream Manufacturers; Harry Bresler, Bresler Ice Cream Company, Chicago, representing International Association of Ice Cream Manufacturers; Ray Alberts, American Butter Institute, Chicago; John Marshall, Creamery Package Mfg. Company, Chicago; J. H. Hill, Swift and Company, Chicago; E. W. Gaumnitz, National Cheese Institute, Chicago; E. W. Tiedeman, Central Dairy Sales Co-op., Chicago, and National Chairman, June Dairy Month Sponsor Committee; Neal D. Kelley, National Dairy Council, Chicago and National Chairman, Committee for Industry Participation; Mrs. Marlan Blaschke, National Dairy Council, Chicago; B. A. Thomas, Louisville, Ky., representing National Milk Producers' Federation; Mrs. Harriett K. Brooks, National Dairy Council, Chicago; Claude Snider, National Dairy Council, Chicago; Stan'ey Wanser, Sidney Wanser & Sons, Chicago, representing Milk Industry Foundation; Lloyd H. Geil, National Dairy Council, Chicago and National Chairman, Committee for Public Relations; Fred G. Jones, Creamery Package Mfg. Company, Chicago, representing Dairy Industries Supply Association; and Mrs. Virginia Cunningham, Kiwanis International, Chicago, representing International Service Clubs.

## 14th June Dairy Month Set

**A** MILLION DOLLARS worth of publicity and advertising through press, radio, television, magazines and public platforms will provide sales opportunities for the dairy industry when it begins its 14th national observance of June Dairy Month on June 1.

The Sponsor Committee, with E. W. Tiedeman, General Manager of the Central Dairy Sales Co-op., Chicago, as National Chairman, is building this year's merchandising and public relations campaign around the theme, "Enjoy Delicious Dairy Foods — Your Best Food Buy." Designed to stimulate increased consumption of dairy foods at a time when milk products are abundant, the nationwide campaign aims:

1. To increase the sale of dairy foods.
2. To promote the appetite and economy appeal of dairy foods.

3. To hold and expand the market for dairy foods.
4. To promote public relations for the dairy industry and its products.

Highlighting the June Dairy Month theme will be a colorful 17" x 22" poster, portraying in a taste-appealing manner, butter, cheese, ice cream and milk. There will also be available 8 x 10 glossy prints of the poster, in black, and a two-column newspaper mat of the poster which the dairy industry and the allied industries as well as the press may use to publicize the campaign to sell more milk and its products and to develop a better understanding and appreciation of the dairy industry.

As in previous years a June Dairy Month Publicity Kit will be available for use by the press, radio, state chairmen, Dairy Council Directors as well as state association secretaries. These Publicity Kits contain endorsements from Charles F. Brannan, Secretary of Agriculture, U.S.D.A.; Philip E. Nelson, Director, Dairy Branch, Production and Marketing Administration, U.S.D.A.; samples of proclamations which may be used by state governors, suggestions for promoting June Dairy Month, newspaper releases, radio spot announcements, radio scripts, speech suggestions, and dozens of other ideas which can be used by the dairy industry to promote dairy foods.

Sponsors of June Dairy Month are: American Butter Institute, American Dairy Association, Dairy Industries Supply Association, Inc., Ice Cream Merchandising Institute, International Association of Ice Cream Manufacturers, Milk Industry Foundation, National Association of Retail Ice Cream Manufacturers, National Cheese Institute, National Creameries Association, National Milk Producers' Federation, and National Dairy Council.

## **PROTECT** Frozen Cream Against Oxidized Flavor Changes USE **N. D. G. A. ANTIOXIDANT**

N.D.G.A. Antioxidant insures positive protection against oxidized flavor changes in frozen cream. It does just this one thing—but it does this better than any other product known. Also the effectiveness of N.D.G.A. in Frozen Cream carries over into the finished Ice Cream. It is:

- Easy-to-Use
- Safe
- Odorless
- Tasteless
- Effective

Prepare now for the flush season. Write for full information today!

Manufactured under exclusive license arrangement with the University of Minnesota. Distributed By—

**NORDIGARD CORPORATION**  
CHICAGO 12, ILLINOIS



again in '50  
the SWING is to

**SAVAGE**

ICE CREAM  
CABINETS

Look on  
**PAGE 3**  
and find  
out why!

## Hibben Discusses 1950 Outlook

**W**HEN an invitation was received by Robert C. Hibben, Executive Secretary of the International Association of Ice Cream Manufacturers, to appear on the program of the First General Session of the Tennessee Dairy Products Association Convention, in the Hotel Andrew Jackson, Nashville, March 2, he responded by discussing the outlook for the Dairy Industry for 1950.

In 1946 the ice cream industry manufactured 713,844,000 gallons, which is the peak production in the history of the industry, Mr. Hibben said. Since that year the industry has lost sales annually. However, in 1949 there appears to be a trend for the better from a sales standpoint, as the preliminary reports from the U. S. Department of Agriculture show that the industry lost only 3% of sales as compared to 1948.

What's ahead for 1950? That depends upon a number of factors, including weather, buying power, quality of product and sensible and intensive merchandising programs, according to Mr. Hibben. While the industry lost 3% of sales in 1949, this is not generally true among all ice cream companies. Where ice cream companies manufactured a quality product, backed by sensible sales and aggressive merchandising programs, they gained sales last year, he pointed out.

January was a good month this year in this industry, going 8% ahead of 1949 and even though last year February was a good month, there are indications, Mr. Hibben stated, that these sales will advance again this year.

## Washington Institute Successful

A great array of top-flight speakers of national reputation, panel discussions, demonstrations, national scoring and judging contests for the various dairy products, with many fine prizes donated by the dairy machinery and supply houses from all parts of the country, trade association meetings, entertainment, a grand conclave of the Order of the Yellow Dog, banquets, and exhibits combined to make the mid-century State College of Washington Institute of Dairying an outstanding educational event. The Institute was held March 6 to 11, at Pullman, Washington.

## 300 Attend New York Party

Over 300 ice cream manufacturers and supplymen in the Metropolitan New York area got together March 21 at the Hotel Belmont-Plaza for the 13th annual open house party of the Ice Cream Supply Men's Club of New York. It was a highly successful affair and the high spot in the year for the supplymen's group which acted as host.

Robert G. Kenny is President, Ira Parnes is First Vice President, Morris Fuchs is Second Vice President and Alex M. Brown is Treasurer. Also serving the association is John B. Goldhamer as Executive Secretary and Albert Smith as Recording Secretary. George Ashley was chairman of the entertainment program which started in mid-afternoon and wound up with a floor show after an excellent dinner.

PICTURED AT the New York Supply Men's Open House part held March 21 were (left to right, on the adjacent page):

FIRST ROW: Paul Mooney of S&S Cone Co., Morris Fuchs of Fuchs & Co., George Staine and Al Smith of Dixie Cup; Eugene Teal, Lloyd Fiscus and George Dodd of Hooton Choc. Co.; Henry Robinson of Ace Cabinet Corp., Morrie Yohai of S & S Cone Co., Bill Rabin of Empire Biscuit Division.

SECOND ROW: C. G. Green and E. S. Jelt-rup of Mathieson Chemical Corp., Conrad Endline of Long Island Ice Cream, C. T. Long-aker formerly of Mathieson and R. S. Stev-erella of Mathieson; Wes Vogel of Savage Arms with Bill Copeland of Pioneer Ice Cream Division; Bud Ryan of Dole Refrig. and Pat Amerio of Amerio Refrig. Equip. Co.; Al Smith, George Staine, Paul Mooney and Bob Kenny, Food Broker.

THIRD ROW: Iggy Blanchard of Kelco, John Frank, and Eric Nielsen of Nielsen Ice Cream Co., and J. P. Davenport of Kelco; Glenn Marlatt of Foremost Dairies, Lou Millman of Jack Frost Ice Cream, Con DeLoce and Len Baker of Foremost Dairies with Harry Pollard of Ice Cream Novelties Inc.; Tom Goldsmith of Queen's Farms, Jack Kotcher and Lou Tolins.

FOURTH ROW: Phil Burro of Folding Cartons Inc., M. Leibman of Meadow Gold Ice Cream and H. Kime of Folding Cartons Inc.; Steve Rose of Fussell Ice Cream and Mort Perry of Pickwick Ice Cream; Joe Yrabel and Leo Woods of Breyer Ice Cream; Arthur Doscher and Tom Shea of American Maize with Ben Libowitz of American Bredco.

FIFTH ROW: D. V. Wadsworth and Pete Hornack of Refined Syrups, L. Hauptman and Lawrence Baron of Prestige-Lawrence Co. and Sol Rosenthal of White Davenport Co.; Iggy Blanchard, John Noonan of John Noonan Co. and Bob Davison of Kelco; Dr. Willis Steinits of American Food Labs, John Newman of Blue Ribbon Ice Cream, Paul Deutsch of Joe Lowe Corp., Mel Cole of Savage Arms and Al Lindauer of Blue Ribbon Ice Cream.

SIXTH ROW: Lou Spreckman of Waverly Ice Cream, Joe and Bernie Kindman of Fulton Eng. Co. and Milton Ainsbinder of Alpha Aromatic; Hy Badner, Leo Overland and Jack Slitsen of LeRoy Foods; Andrew de Balogh, Manfred Landers and Ben Libowitz of American Bredco.

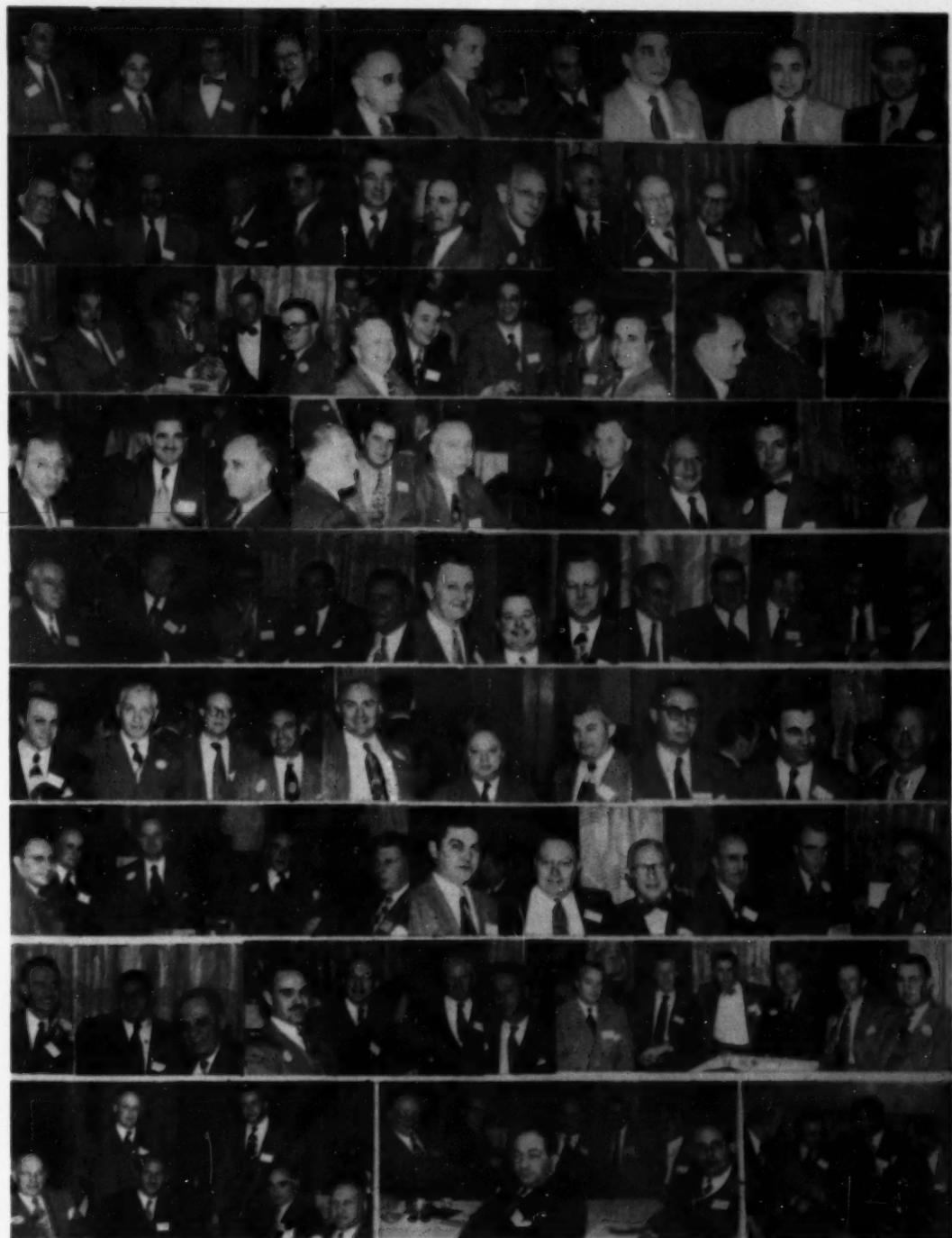
SEVENTH ROW: A. Grossman and A. Nash of Swift & Co., George Ashley of Robt A. Johnston Co., Walter Gunther and Carl Carlsson of Van Houten Choc. Co.; Leo

Benosky and Pat Lohan of Meadow Gold Ice Cream with Joseph Glaubman of American Food Labs; Henry J. Walker of Queensboro Farms, Eric Webster of Eastern Dairy & Eng. Co. and Max Hoffman.

EIGHTH ROW: Harry Habert and Marc Bloch of National Dairy Prod. with Charles Grube of Wilbur Suchard; George Tressler of Brown's Fostered Foods, Edward Tyrrell and T. F. Wakefield of Terwilliger and Wakefield Ice Cream Co. with Elia Cantor of Heiman & Co.; H. Failing of Continental Can, Wm. Hollrock, R. Madden and Ev Freud of Seal-right, T. McGlynn of Continental Can and Sumner Bates of Robt A. Johnston Co.

NINTH ROW: Seated: Ira Parnes of Refined Syrups, Jack Friendly of Mayflower Ice Cream, Harry Pollittoff, Atty., and Julius Glasser. Standing: A. Nash and A. Grossman of Swift & Co.; Front Row: Mike Bachman of Blue Ribbon Ice Cream and Hymie Rubel of R. & G. Milk Co.; Rear row: Louis Price, Al Lindauer, Samson D. Price of Chill-Ripe Fruit Co., Paul Deutsch of Joe Lowe Corp. and Morris Lindauer of Blue Ribbon Ice Cream; S. J. Tepper of Mardi Gras French Ice Cream, S. Levovitz of Senator Frozen Products, Ruby Mattus of Colony Club Ice Cream and Conrad Endline of Long Island Ice Cream Co. Photos by the ICE CREAM FIELD man.

## New York Supply Men Hold "Open House"



Attract distant shoppers  
to your store with...

**Jiffy**

INSULATED BAGS

## DON'T...

limit your sales of packaged  
Ice Cream to local trade only!

Expand your trading area with JIFFY INSULATED BAGS, which protect ice cream from melting for at least two hours—thus enabling you to attract customers for miles around.

Order your JIFFY INSULATED BAGS imprinted. The life of the Jiffy Bag is long and varied. Your ad is seen many times, when the bag is used for lunches, picnics and outings.

ORDER NOW

TRY THE CIGARETTE TEST!



... to prove the  
insulating qualities of  
JIFFY INSULATED BAGS

**Jiffy**

JIFFY MANUFACTURING COMPANY  
360 FLORENCE AVENUE • HILLSIDE, N. J.

Wholesale Distributors Represented by  
RAY T. ROBERT COMPANY • P.O. Box 550 • Redwood City • California

## Flavor Convention Plans Announced

DR. J. W. SALE, Chief of the Beverage Division of the Food and Drug Administration, and the Honorable Hamilton Eams, Educational Director of the American Economic Foundation, are among the speakers scheduled to address the 41st annual convention of the Flavoring Extract Manufacturers' Association at the Hotel Traymore in Atlantic City, May 7 to 10. The complete convention program has been announced by John H. Beach, chairman of the convention committee of the association.

Dr. Sale will speak at the opening general session on May 8 on the topic: "Some Recent Administrative Opinions and Court Decisions under the Federal Food, Drug and Cosmetic Act of Interest to Flavoring Extract Manufacturers."

The address of Hamilton Eams on "Management, Wages, Prices, Profits" will highlight the morning session on May 9. Ray C. Schlotterer, Secretary of the Vanilla Bean Association, will discuss "The Vanilla Market." Other important speakers that day will include Professor P. H. Tracy of the Dairy Husbandry Department of the University of Illinois, Paul S. Willis, President of the Grocery Manufacturers of America, Ernie Briggs, Jr., of the Dow Chemical Company, and A. K. Barta of the Proprietary Association.

"Ethyl Alcohol—Past, Present, and Future Trends" will be the subject of an address by A. R. Ludlow, Jr., Manager of alcohol and chemical sales, U. S. Industrial Chemicals, Inc., at the afternoon session on May 9. H. P. Wesemann, President of the Essential Oils Association of America, will speak on "Essential Oils." "Responsibilities of Field Sales Management" will be discussed by J. J. Thompson of Charles Pfizer and Company, Inc. Admiral Fred Bell, U.S.N. (retired), Director of Human Relations, McCormick and Company, will address the convention on "Human Relations."

Reports of the various committees of the FEMA will also be heard. Election of officers for the coming fiscal year will be held on May 10. The convention will open on Sunday, May 7, with a luncheon meeting of the executive committee.

## Merchandising Institute Completes Series

On March 17, the final Ice Cream Merchandising Institute Training School for Ice Cream Company Merchandisers in the 1949-50 series, was completed at the Institute's headquarters in Washington.

This school, filled to capacity was an "extra" over the originally planned series, made necessary by the pressure of requests of ice cream companies for space.

"As we finish the current series of 1949-50 Training Schools," stated George W. Hennerich, Managing Director of the Ice Cream Merchandising Institute, who personally directs the schools, "we feel most enthusiastic as to results of our schools to date, and feel that as an affiliate of the International Association, we are rendering a unique service to the membership. We are most optimistic about the future outlook for the schools and for the help our graduates will be to the industry as a whole. Demand for space has exceeded supply throughout this entire year, and we already have applications for next year.

"The industry will be receiving soon a prospectus of the course and dates for the 1950-51 ICMI Training Schools."



MARYLAND-D.C. Dairy Technology Society meeting was held March 8 at the Mural Continental in Washington, with an attendance of eighty. Guest speaker was Elliot Danzig, Richardson-Bellows-Henry and Company, Philadelphia, who spoke on "Industrial Psychology as Applied to the Dairy Industry." He was selected as speaker by the Society's Program Committee (pictured here, left to right): Hartman K. Harrison, Kress Farm Dairy, Baltimore; Dr. W. S. Arbuckle, University of Maryland; and Fred M. Grant, United States Department of Agriculture.

## Highway Users to Meet

A national meeting devoted to study and action on highway and road problems, including those of special interest to such highway users as ice cream manufacturers, will be held in Washington, April 25, 26 and 27 by the National Highway Users Conference. The meeting will be the Third Highway Transportation Congress, with sessions in Washington's Hotel Mayflower.

At these sessions, to be addressed by national and state authorities on highway problems, policies necessary to continued healthy growth of highway transportation will be discussed. Among the delegates will be representatives of most of the State Highway Users Conferences, whose membership includes ice cream manufacturers and numerous other groups to whom highway transportation has every-day, dollar-and-cents importance.

Harvey P. Hood, of the International Association of Ice Cream Manufacturers' board, is on N.H.U.C.'s Board of Governors, which will meet during the Congress. Robert C. Hibben, executive Secretary of the association, is a member of N.H.U.C.'s Administrative Committee and as such will have an important part in the Congress.

Information and registration blanks for the Highway Users Congress may be obtained from the offices of the National Highway Users Conference, National Press Building, Washington 4, D. C.

## Kansas State Conference Host to 125

More than 125 field men, plant workers, and production managers attended the Dairy Industry Conference sponsored by the Kansas State College of Agriculture and Applied Science, held February 23 and 24 at the Manhattan, Kansas campus. Many prominent personalities in the ice cream industry served as guest speakers during the two-day sessions.

ICE CREAM FIELD, April 1950



P & S lights up the ice cream industry with the glow of quality of

its True Fruit and Imitation Fruit flavors.

For years P & S has ushered in delicious tempting tastings, and ice cream men have consistently profited from these flavorites.

Research and a high degree of manufacturing ability guarantee the continuous performance of P & S products. Use P & S for compliments that pay off in dollars.



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Midwestern Office: 173 W. Madison Street, Chicago 2, Ill.

Representatives: Milwaukee - Los Angeles - San Francisco

Canadian Office: Polak & Schwarz (Canada), Ltd.

1617 Dundas Street, W., Toronto, Ontario, Canada

## Oregon Group Elects Bloom

One of the largest annual meetings in the thirty-nine-year history of the Oregon Dairy Manufacturers' Association came to a close March 1 with the election of R. W. Bloom of Portland as President, succeeding Marvin Davidson of Portland.

An estimated 450 members of the dairy industry attended different meetings of the convention, according to Dr. G. H. Wilster, head of dairy manufacturing at Oregon State College.

About twenty speakers, headed by Professor C. A. Iverson, Chairman, Department of Dairy Industry, Iowa State College, discussed a wide variety of subjects during the three-day meetings.

Other association officers elected include F. A. Kesey, Eugene, Vice-President; Frank F. Moser, Corvallis, re-elected Treasurer, and G. H. Wilster re-elected Secretary. Directors are J. E. Jorgenson, Medford; Gordon K. Long, Cloverdale; R. Van Auker, Coos Bay; William Fletcher, Enterprise; Gerald Johnson, Mt. Angel; P. A. Bails, Corvallis; and Eugene Guerretaz, Bayard Hillway, and Marvin Davidson, all of Portland.

## Godfrey Heads Chicago Dairy Mixers

At the meeting of the Chicago Dairy Mixers on February 24, the officers for 1950 were elected for one-year terms. C. K. Godfrey, of the Nash-Kelvinator Sales Corporation, was elected President; Earl Forster, of the Cherry-Burrell Corporation, First Vice President; and Bob Nelson, of the Robert A. Johnston Company, Second Vice President. W. B. Roskam and A. V. O'Connor were unanimously elected to serve another year as Treasurer and Secretary, respectively.

Mr. Nelson was selected to head the Golf Party Committee for this coming summer and he elected to share the lead with Mr. Forster. A committee was selected consisting of Stuart N. Humphreys, L. P. Cunningham and C. J. Beringer, and a meeting was held after election.

## Packaging Institute Set for October

The date of the Twelfth Annual Forum of the Packaging Institute has been announced as October 23 to 25, at the Hotel Commodore, New York, by Charles L. Barr, President of the Association.

## Dairy Council Directors to Meet

Directors of Affiliated Dairy Council Units in key cities from coast to coast will meet for a three-day session on program planning in the interests of the dairy industry at the Hotel Edgewater Beach, Chicago, from June 26 to 28.

Sponsored by the National Dairy Council, Chicago, the program is being designed to assist Dairy Council Directors to meet more effectively the problems which arise in directing the educational program among leaders in the professional, educational, governmental and consumer groups as well as to assist Dairy Council Directors to understand more thoroughly dairy industry needs. Particular emphasis this year is being placed on the practicality of the program.

Milton Hult, President of the National Dairy Council, states the entire program should prove invaluable to the members of the Board of Directors of the Dairy-Council units throughout the country as well as to other dairy industry executives who are welcome to attend the three-day session.

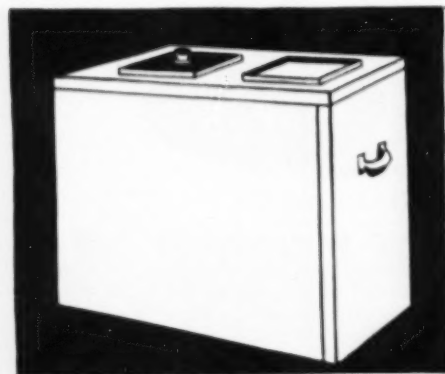
## Quality Chekd Expands

Expansion of the Quality Chekd Ice Cream Association to include milk and other dairy products has been revealed in an announcement from Quality Chekd managing director, Harlie Zimmerman, that an entirely new advertising-merchandising program for milk and other dairy products has been developed and is being put into effect by members this month.

With the adoption of the new program by members in April, initial step toward a national Quality Chekd association for all dairy products, Quality Chekd milk, cheese, butter, cottage cheese, etc., will be sold in ten states. Quality Chekd Ice Cream is now being marketed in 22 states.

## Dr. Warren Addresses North Carolinians

Dr. Fred G. Warren of the North Carolina State College Dairy Manufacturing Department, was the guest speaker at the March 21 meeting of the North Carolina Dairy Technology Society. His topic was "Freezing and Storage of Concentrated Dairy Products."



### FAST-FREEZE DRY ICE CABINET

50,000 NOW IN USE

*Ideal for Summer and Seasonal Stops*

- Insulated with Ultralite, will not absorb moisture.
- Rust-Resisting galvanized metal in all metal parts.
- Much cheaper and easier to operate than mechanical cabinet.

Lower initial costs—	No Upkeep costs—	Long life—
No installation fee—	No moving parts—	No electric bills.

Model L40 shown, has 40 doz. capacity. Also available 10 doz. to 50 doz.

Quantity discounts — Write for prices now.

**BROOKLYN METALWARE CORPORATION**

222 Varet Street

Brooklyn, N. Y.

## New Products

### SCHAEFER CABINET



The Model Q-10 Ice Cream Merchandising Cabinet, has been introduced by Schaefer, Inc., Minneapolis. This new model holds 444 pint packages of ice cream. "Stage-lighted" superstructures with three dimensional Kodachrome pictures, removable shelves, casters and flavor strips are included, the manufacturer reports.

Refrigerated partitions give every package direct contact with a prime refrigerated surface to maintain ice cream at peak quality under all conditions. The cabinet is of all steel construction.

A. H. Rose, Vice President in charge of sales of Schaefer, Inc., who recently returned from a trip covering the Pacific Coast and the southwest, reports a large demand for Schaefer ice cream cabinets.

### KLENZADE CATALOG

Klenzade Products Inc. announces a new catalog of its line of detergents, bactericides, and other products. The cata-

log includes a great amount of technical information not heretofore available in simple non-technical language, according to the firm.

In addition to illustrations and descriptive material of the various Klenzade products, each product page carries a technical description on the reverse side for buyers who are interested in the technical aspects of the various detergents and bactericides which they purchase.

The catalog also contains a virtual "short course" in cleaning chemistry and the fundamentals of soil removal.

The new Klenzade catalog is 8½" x 11" in size, loose leaf in form, and cross indexed by product names, product groups, and cleaning jobs. The company points out that the book has been planned as a constructive aid to the executive and working personnel in dairy and food plants to help them in a better understanding of cleaning and sanitizing problems.



### FLASHER SIGN

Universal Displays has developed a "feature flavor" flasher sign for point-of-sale promotion. The sign shows a "flavor-of-the-month" on a changeable flavor strip

and the word "featuring" appears and disappears with the flash inside an arrow



which attracts attention to the "feature flavor."

An advantage of this display, according to the manufacturer, lies in its ability to sell the customer on the flavor the ice cream manufacturer wants him to buy.

### HEAT EXCHANGER

York Corporation has announced that it is now manufacturing a small all stainless steel Model HT Plate Heat Exchanger especially designed for the batch pasteurizing plants and for single duty applications in the larger dairies.

John R. Hertzler, Vice President and General Sales Manager of York Corporation, said this new small Heat Exchanger contains most of the features of the larger York model.

He pointed out that this new model is particularly suitable for the rapid heating, regeneration and cooling operations involved in processing milk and milk products, and for high temperature-short time pasteurization, heating to 160 degrees (F.) and holding 16 seconds. Pasteurizing by the batch method requires 30 minutes holding at 145 degrees.

## INFORMATION PLEASE

Your Firm Name \_\_\_\_\_

Address \_\_\_\_\_

Your Name \_\_\_\_\_

Your Title \_\_\_\_\_

To New Products Department,  
Ice Cream Field  
19 West 44 Street  
New York 18, N. Y.

I would like to know more about the following New Products mentioned in the April issue.

(Print Identifying Numbers)

☐ ☐ ☐ ☐ ☐ ☐



# again in '50 the SWING is to **SAVAGE** ICE CREAM CABINETS

To see  
why,  
turn to  
**PAGE 3**

## CP PAMPHLET

Creamery Package Manufacturing Company has issued a new pamphlet which pictures and describes the firm's line of equipment for 1950. Copies of this publication are available on request.

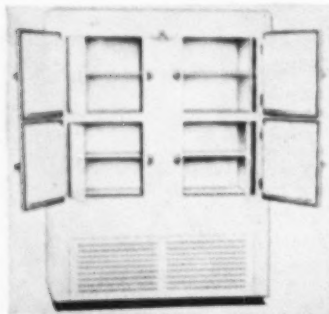
## STORAGE CABINETS

Henry S. Robinson, National Sales Manager of Ace Cabinet Corporation, has announced the availability of two ice-cream storage cabinets.

The new Model C-12-D is a fully self-contained double row unit with a total capacity of 60 gallons. The top is one piece stainless steel fitted with twelve flip-flop type lids with flexible hinge. Ventilation is provided in the perforated kick-plate and two grills, front and back of the air-cooled condensing unit. The condensing unit is mounted on "glide-out" runners for cleaning and servicing. Insulation is of low thermal conductivity utilizing corkboard and rigid fibre-glass, all sealed against moisture and vapor infiltrations. Exterior is of high gloss, baked white enamel.

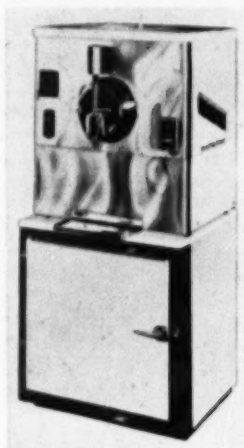
Completely new in design is the Ace Model SU-28, upright storage cabinet. It has a fully self-contained hermetically sealed condensing unit. The unit is accessible with the Ace-designed "glide-out" control for cleaning or servicing, and holds 100 gallons of ice cream. (See illustration.)

There are six separate doors on the outside and six doors on the inside, so that when doors are opened, the low temperature inside does not spill out. Dimensions 58½" wide, 29½" deep, and 72" high.



## 5 CONTINUOUS FREEZER

The Sweden Freezer Manufacturing Company has begun production and distribution of a continuous-type soft ice cream freezer, to be known as Sweden Continuous Freezer, Model 1-160. This new machine retains many of the design features that are basic in the Sweden line, and has a number of new and distinctive features as well, the firm reports.



The draw-off gate of the new Sweden Continuous Freezer is of the plunger type, and is electrically controlled through a foot switch. The stainless steel plunger itself is designed for sharp clean cut-off of the product being dispensed, without dripping or melt-down between servings.

The top of the freezer is flat, for display use, and contains a panel through which a removable heavy gauge stainless steel mix tank and fittings can be reached. From this refrigerated tank, a continuous mix feed device supplies mix and air in proper proportions for high average overrun control. Mix flows from the four-gallon tank to the back of the cylinder, with the machine being so designed that incoming mix does not affect the consistency of the product being drawn off from the machine.

While the machine is of the continuous type, it has been designed primarily for use in crowded quarters. Its dimensions—27" wide, 21" deep, 29" high—permit this

7

unit to be placed on backbar, on counter; or it can be mounted on a special stand, or on a reserve supply mix storage cabinet, obtainable from the Sweden company. The Sweden Continuous Freezer has a water-cooled Freon refrigeration system, and is self-contained, requiring only connections to cooling water supply, drain, and electrical power source, to be ready for operation.

Literature can be obtained by writing to the Sweden Freezer Manufacturing Company.

## McHALE CATALOG

8

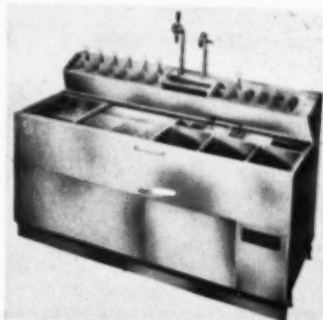
A new catalog on Kleen-Milk Dairy Ware has recently been issued by McHale Manufacturing Company, it was announced by Bill Watz, Vice-President of the stainless steel engineering and fabricating firm which was established in 1920. Copies are available on request.

## U-A BOBTAIL

9

United-American's new #66-B Storage Unit is 5' 6" in length and includes features associated with larger fountains, according to the manufacturer. The design and arrangement was reportedly evolved from the recommendations of health authorities and fountain operators.

The three 10" by 14" full drawn sinks, pressed from one sheet of stainless steel (no seams), and the two-level sanitary drainboards contribute to easy cleaning and sanitary assurance. This new Bobtail also provides seven syrup pumps, four crushed fruit jars, spoon vat, running water disher vat, dump sink, pull-out type refuse can and seven cubic feet of storage space.



## CARTON REPLICAS

10



David Davidson Displays Company has recently introduced plastic replicas of ice cream cartons designed for connection to cold storage cabinets or window shelves so that patrons of retail food stores will be reminded to buy extra quantities of these dairy products. They are said to be long-lasting and true-to-life.

## SIMCO ATTACHMENT

11

Twin Attachment Sales has developed the Simco Twin Attachment, for connection to the #143 Anderson stick dispenser to enable stick machine operators in ice cream plants to insert forty-eight sticks in a twin stickholder in two cycles of the Anderson machine. This is said to eliminate the need of auxiliary twin loaders and the extra man usually required by such loaders.

The Simco unit is described by the manufacturer as "easy to install, and will work with all automatic or semi-automatic bagging equipment." Savings in time and labor are claimed.

Additional information is available from the manufacturer.

## LE-MAL-TO

12

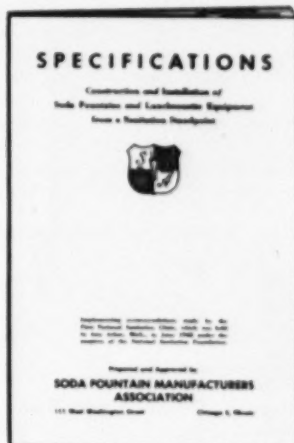
Le-Mal-To, a basic mix for low fat mixes for bars and bulk ice cream used in males and shakes, has been placed on the market by Le-Mal-To Company. The product is also described as desirable for soft frozen products. Additional information is available on request.

## FOUNTAIN PAMPHLET

13

The Soda Fountain Manufacturers Association has compiled an illustrated pamphlet, which contains the Association's conception of the manner in which soda fountains should be built in order to comply with sanitation standards established by Public Health officials.

Detailed specifications are published in this pamphlet, which is available without cost on request.



## BRUNNER EQUIPMENT

14

Brunner Manufacturing Company has made available condensing units and com-

pressors including nearly fifty models scaling from 1/4 H.P. to 75 H.P.



Basically identified as the R-75000 Compressor, this newest member of the Brunner family will be available in six models: Compressor, motor and bed plate combinations, for use with evaporative condensers in 50, 60 and 75 H.P. sizes, will be known as models E-50000, E-60000 and E-75000. For use with water cooled condensers the same sizes are identified as W-50000, W-60000 and W-75000.

In design the R-75,000 is a fully pressure lubricated 8 cylinder, 90 degree Vee type compressor with 2 cylinders to a block. Blocks and crank case are of close-grained, non-porous, special analysis cast iron.

Pearlitic cast iron crankshaft with induction hardened journals and pins are used. Throws are arranged so that a discharge stroke occurs every 45 degrees, thus aiding easy starting and smoothing out of power impulses. Cast iron pistons, malleable connecting rods, diamond bored bronze bushings, all machined and assembled under high precision methods, contribute to the efficiency and relatively quiet running of these units, according to the manufacturer.

## Vanillas with a Reputation!

For 42 years MASSEYS Vanillas have been considered the standard for quality, uniformity and dependability throughout the length and breadth of America. If you haven't yet used them, a treat is in store for you and your clientele.

PURE VANILLAS • VANILLA AND VANILLIN BLENDS • IMITATION VANILLAS AND CONCENTRATES

**MASSEYS Inc.**

Order a trial gallon today of the type and strength you prefer... complete satisfaction guaranteed.



*Vanilla Specialists since '07*

1214-16 WEBSTER AVE., CHICAGO 14, ILLINOIS

Buying and Curing Plant:

LIBERTAD 62, GUTIERREZ ZAMORA, VERACRUZ, MEXICO



Modern, cold-process extraction assures highest quality vanillas.

## STOP—STORAGE and DELIVERY WORRIES!



WITH A  
**LA CROSSE  
HI-BOY  
MIX  
COOLER—**  
A Refrigerated  
Storage Cabinet

Sanitary, refrigerated cabinet meets the demands of the Counter Freezer Industry. Electric cabinet, 30" x 45", stores 4-10 gallon Mix Cans plus small containers on handy shelf, operation at temperatures of 34° to 42°—equipped with temperature control.

WRITE TODAY . . . for further information and name of nearest dealer.

**LA CROSSE COOLER CO.**

2809-17 Lasey Blvd., So.  
La Crosse, Wisconsin

## DIAL THERMOMETER

15

A new Tempoint dial thermometer has been developed by Bacharach Industrial Instrument Company for indicating temperatures from 200° to 1000° F. The instrument comprises a three inch diameter body and a stainless steel stem, 5½ inches free length with 2 inch immersion required to obtain accurate readings. The bezel of the body is high temperature bakelite, having a glass window sealed with a silicon gasket to keep moisture and dust from the scale.

Exceptional readability is claimed for the instrument due to the long, V-shaped pointer which is colored bright red; and its large non-glare scale with correspondingly large numerals and clear graduations.

Complete particulars are available in Leaflet 775 which is available from the manufacturer on request.

## ACORN VENDOR

16

An addition to the line of ice cream vending equipment manufactured by Acorn Sheet Metal Manufacturing Company has been announced. This new model is known as the Model E Junior Cart Vendor.

It is streamlined in design—insulated with two inches of fibre glass all around and constructed entirely of steel which is finished in baked enamel. Equipped with highly serviceable hardware and two 10 by 1¼-inch ball bearing wheels, the Model E Junior Cart Vendor is designed for dry ice refrigeration and has a capacity of 400 ice cream bars.

Complete information is available from the manufacturer.



## MERRITT DEVICES

17

A new development in point-of-sale ice cream advertising is the "Sho-Sign" Neon merchandiser introduced by R. K. Merritt and Associates. The structure is a heavy, durable translucent acrylic enclosure twelve inches long, twenty-seven inches wide and four inches through, that may be hung in



store or windows and is lighted from inside by Neon tubes. (See illustration.)

The interior illumination produces a third-dimensional effect in the full-color, removable photo of ice cream serving which is set in a transparent window on the face of the sign. Raised colored letters carrying the advertiser's name and message in standard or individual style lettering are set opposite the photo on the illuminated sign.

An ice cream cost calculator has also been developed by the R. K. Merritt organization. After using a small scale to determine the weight of a dipped portion of ice cream, the dispenser is then able to use the dial of the cost calculator to read the cost of that scoop. Additional information is available on request.

## PORT MORRIS BROCHURE

18

Charles Erickson, of the Port Morris Machine and Tool Works, manufacturers of the Electro Freeze soft ice cream machines, has announced the publication of a new brochure entitled "Profitable Plans for Your Future!" The piece has been printed as a service to those people interested in formulating plans for a roadside stand.

The brochure includes pictures of successful stands, the necessary specifications for a good location and suggestions for exteriors, interiors, lighting, types of construction, parking area requirements, etc.

This publication is free upon request.



**Hudson's  
VANILLAS**



**Hudson Manufacturing Co.**  
Vanilla Products  
119 NORTH UNION AVE., CHICAGO 6, U.S.A.

*Finest Vanillas for Over 60 Years*

# HOOTON

**CHOCOLATE  
FLAVORCOAT**

Made with CHOCOLATE LIQUOR

better taste for ice cream  
bars and novelties

**HOOTON  
CHOCOLATE COMPANY**  
NEWARK 7, NEW JERSEY



## You Can Make More Money With FRANKLIN VENDING BODIES



★ You get GREATER VALUE, CONVENIENCE and ECONOMY because of FRANKLIN'S years of experience in building quality bodies.

### LOOK AT THESE FEATURES!

All Welded Construction • Streamlined Designing  
Self-Contained Refrigeration System  
Ruggedly Built for Long Efficient Use

Get our prices before you buy!

## FRANKLIN BODY & EQUIPMENT CORP.

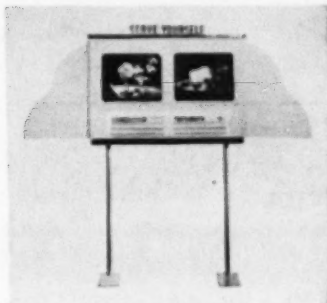
1042 DEAN STREET

BROOKLYN 16, N. Y.

Tel.: MAin 2-2100

### VIEW MERCHANDISER

19



Middle West Sales Company has introduced a "view merchandiser" designed for attachment to all ice cream cabinets to stimulate impulse purchases. The superstructure measures 36" by 23" by 3" and extends to 60" (with wings). The unit can be installed in five minutes, states the manufacturer. It is of steel construction with baked white enamel finish. Additional information is available on request.

### FOREMOST BOOKLET

20

Foremost Fountains has published a booklet which describes and illustrates its current line of soda fountain units. Features of the fountains are listed by the manufacturer in this brochure, copies of which may be had on request.

### HERMAN BODY LINE

21

The Herman Body Company 1930 line of refrigerated truck bodies includes two new features, said by the manufacturer to substantially improve the efficiency of the units.

All-steel doors have been added. These are described as lightweight, and it is claimed that they will open and close un-

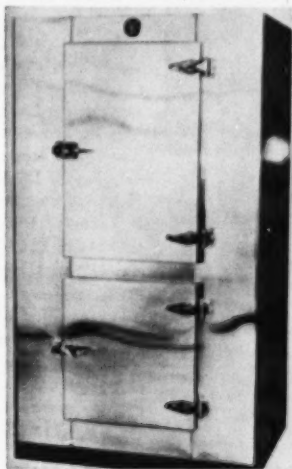
der all conditions, and won't "freeze" at low temperatures.

A condensing unit designed especially for low-temperature motor truck use has also been added. They are said to be compact with greater capacity. "Just plug in and run—even on the hottest days," says the manufacturer.

Additional information and literature concerning both these innovations as well as the entire Herman line is available on request.

### HARDENING CABINET

22



The Emery Thompson Machine and Supply Company, announces the addition of a Vertical Ice Cream Hardening Cabinet to the Emery Thompson line of ice cream equipment.

This cabinet, the Model VR-75, has been designed to provide the maximum hardening area while using a minimum of floor space. The increased height of the

hardening cabinet doubles the available storage space over the conventional type hardener, according to the manufacturer. The cabinet's capacity is seventy-five gallons of ice cream in either five or 2½-gallon cans.

Featuring an entirely stainless steel exterior, extra heavy duty hardware and a completely welded construction, the Model VR-75 takes up floor space of 42" x 30".

### VENDING BOX

23

The New England Vending Equipment Company is currently featuring a new vending box, made of wood with ½-inch insulation. Its size is 18 by 16½ by 9½ inches, and its weight is 13½ pounds. Capacity of this box is ten to fifteen dozen novelties. (See illustration.)

The firm has also developed a Chocolate Paddle Pop Machine, with which two people can turn out 120 dozen ten-cent novelties or 180 dozen five-cent novelties in eight hours, according to the manufacturer. Additional information is available on request.





people

#### LOCKERBIE HEADS EQUIPMENT OFFICE

The opening of a new sales office and stockroom in Utica, New York, has been announced by Eric Webster, President of the Eastern Dairy Equipment Company. The office will be located at 130 Hotel Street, and Tom Lockerbie will be in charge. The new facilities are designed to give better and quicker service to Eastern Dairy Equipment customers in that area.

#### KENNEDY HEADS ABBOTTS DAIRIES

Ridgway Kennedy, Jr., has been elected President of Abbotts Dairies, Inc., Philadelphia, to succeed the late Christian R. Lindback who died March 20.

Mr. Kennedy became associated with the company in 1912. In those early days he was employed in the milk pasteurizing and bottling departments. When Abbotts acquired the Lifter Ice Cream Company in 1919, Mr. Kennedy was transferred to that division and became its manager in 1939. He was later appointed Vice President of the company in 1941 and in 1944 assumed additional responsibility when he became General Manager of the company's Eastern operations. In 1949, Mr. Lindback appointed him General Manager of the company.



RIDGWAY KENNEDY, JR.

Mr. Kennedy is first Vice President of the International Ice Cream Manufacturers Association and a Vice President of the National Dairy Council.

Abbotts Dairies, Inc., was founded in 1876 by George Abbott. Its operations include the distribution of milk in Philadelphia and the surrounding territory, and the manufacture and distribution of ice cream and cheese products in several Eastern States.

#### E. B. LEHRACK ELECTED

E. B. Lehrack was elected Executive Vice President of The Creamery Package Manufacturing Company, manufacturers of processing equipment and refrigeration for the Dairy Industry, at a Directors' meeting held March 1, at the firm's General Offices, Chicago, according to an announcement from G. E. Wallis, President of the company.

Mr. Lehrack started with Creamery Package in 1919 as a sales man for the firm's Kansas City Branch. In 1926 he organized his own business—the Lehrack Ice Cream Co. of Wichita Falls, Texas; he later consolidated Lehrack-Ferguson Dairy Products Co., and in 1929 sold to Carnation Company, becoming Supervisor of Carnation's fresh milk and ice cream division operations in Texas, Oklahoma, Missouri and Iowa. In 1935, Mr. Lehrack returned to The Creamery Package Mfg. Company, Chicago, and was elected a Director and Vice President in Charge of Sales in 1936.

During World War I, Mr. Lehrack was assigned to the office of Chief of Ordnance, Washington, D. C. In the second World War, he served various War Production Board and Department of Agriculture assignments, and took an active part in Creamery Package's manufacture of armaments for the Army, Navy and Air Corps. In addition to active work with the Dairy Industries Supply Association, Mr. Lehrack served as Chairman of the National Association of Dairy Equipment Manufacturers in 1948, and is currently a Director.

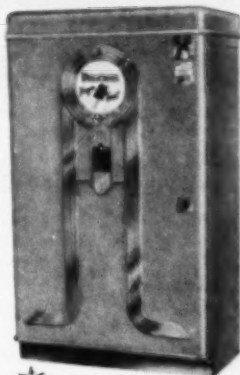
#### POLAK & SCHWARZ APPOINTS CARSCH

Polak and Schwarz announces the recent appointment of Gustav Carsch as Manager of the firm's Chicago Branch. Having been a sales representative for the flavor firm in the midwest territory for several years, Mr. Carsch is well acquainted with the problems of the trade and will continue to serve his many friends in his new capacity.

# ATLAS "Col Snac" ICE CREAM BAR-ON-A-STICK VENDOR

The ONLY Merchandiser  
With ALL The Practical  
Features That Mean  
Maximum Sales With  
Minimum Investment!

- No additional Packaging!
- Completely Automatic!
- Extra Big Capacity!
- Slug Rejector Is Standard!
- Quick Loading!
- Right Temperature Always!
- Light Where It's Needed!



Purchasers of 10 or more ColSnac  
Vendors will get help from Atlas  
Field Representatives without  
charge in securing profitable  
locations.

*Write Today!*

**ATLAS TOOL & MFG. CO.** 3347 Natural Bridge Blvd.  
St. Louis 15, Missouri

## LANGFIELD IS NORTHVILLE'S MAYOR



C. E. LANGFIELD

Following the war, he became affiliated with Parke Davis and American Home Products.

He has served one term already as Mayor and an additional term as a member of the Northville Village Council.

Conrad E. Langfield, President of Northville Laboratories, Inc., was re-elected Mayor of Northville, Michigan at the village's election March 13. He was unopposed on the ballot. Mr. Langfield's new term is of two years' duration.

Mr. Langfield has lived in Northville for more than thirty-seven years. A pharmaceutical chemist by profession, he served during World War I in the surgeon-general's office purchasing medical supplies for the Army.

## McHALE NAMES BEHR

McHale Manufacturing Company of Los Angeles, is expanding into chemical, citrus, food processing and petroleum industries, as is evidenced by the firm's recent appointment of Harry C. A. Behr of Arlington, Massachusetts as New England representative for McHale equipment used in industries other than the dairy field.

## G. L. PHILLIPS ARRIVES FROM ENGLAND

G. L. Phillips, Sales Manager of B. Young and Company, of England, arrived in the United States on March 18 to visit the American ice cream industry and the Spa Gelatine Sales organization in America.

Mr. Phillips is relieving N. Dearing who sails April 14 to England to take a well-earned vacation with his family. Mr. Dearing plans to report to his firm on the fine courtesies extended to him and the business being developed in the United States and Canada.

## GREEN APPOINTS DISTRIBUTOR

Robert M. Green & Sons, Inc., manufacturers of soda fountains since 1874, have announced the appointment of Frank D. Green and John W. Rolleston as distributor in Southern Florida. Messrs. Green and Rolleston will make their headquarters at Miami.

The management of Robert M. Green & Sons, Inc., will continue with S. M. Norman as President and M. R. Burke as Vice President.

## LOGAN REPRESENTS DEAN PRODUCTS

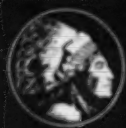
Dean Products, Inc., 1042 Dean Street, Brooklyn, New York, manufacturer of Dean Cold Plates, has announced that Charles R. Logan is now representing the firm in the East Pennsylvania District. Mr. Logan is well-known in the refrigeration industry as a past president of the American Society of Refrigeration Engineers. He also served for two terms as Chairman of the Philadelphia Section of the A.S.R.E.

## Dutch Process COCOAS



by  
*Ambrosia*  
MADE IN THE U.S.A.

**AMBROSIA CHOCOLATE COMPANY**



again in '50  
the SWING is to **SAVAGE**  
ICE CREAM  
CABINETS

See  
**PAGE 3**  
for the  
reasons!

#### LIMPERT BROS. FIRM NAMES TOTTY

Limpert Brothers, Inc., announce the appointment of Charles B. Totty to represent the Vineland, New Jersey, firm's line of fruits, flavors and extracts in Mississippi, Louisiana, Tennessee and certain sections of Alabama. Mr. Totty was formerly connected with the Union Ice Cream Company of Nashville, Tenn. During the war, he was with the U. S. Air Force Ferry Command. His home address is 1808 Shelby Avenue, Nashville.

In connection with the Limpert line, Mr. Totty will be associated with W. C. (Jack) Sowell of Sowell Dairy Sales, Richmond, Virginia.

#### COOK NAMED AMBROSIA EXECUTIVE



L. RUSSELL COOK

Ambrosia Chocolate Company has announced the appointment of L. Russell Cook to an executive position with the Company. Mr. Cook will be Technical Director and Assistant to Irving R. Gillette, Vice President in Charge of Sales.

Mr. Cook brings to his new post at Ambrosia a well balanced background of academic training and practical experience. He received both his B.S. and M.S. degrees at Pennsylvania State College where he specialized in Dairy Husbandry with a major in biological and food chemistry.

He was Vice President of the W. A. Cleary Corporation, lecithin manufacturer, from 1943 to 1949 when he returned to Wilbur-Schard Chocolate Company as a Vice President, having previously served that Company as Chief Chemist and Production Manager.

#### GROSSMAN HEADS DICED CREAM BRANCH

Irwin R. Grossman has been named head of the newly-organized Diced Cream Company of New York, which will operate a plant in Long Island City, New York.

#### EAGLE MACHINE APPOINTS LEAHIGH

Louis Schmidt, President of Eagle Machine and Tool Company, New York City, has announced the appointment of James E. Leahigh, 615 Davis Street, Evanston, Illinois, as distributor. Mr. Leahigh will be the exclusive agent for the Eagle line of continuous freezers in Illinois, Iowa, Missouri, Indiana, and Wisconsin.

#### BUTTERMANN ANNOUNCES ACQUISITION

Acquisition of the Buttermann Ice Cream Company, Inc., by The Borden Company, has been announced by G. G. Buttermann, President of the Louisville, Kentucky ice cream concern.

There will be no change in the company's policies, practices or products. All officials and employees of the concern, which will retain its name, will remain in their present capacities. Products will be sold under the same brand names—Buttermann All Cream Ice Cream and Hollenbach Pure Ice Cream. Produced in a modern two-story plant, these ice creams are sold in Louisville and surrounding Kentucky communities within a radius of 90 miles.

Mr. Buttermann, President of the company since it was founded twenty years ago, will continue to head the organization. A native of Louisville, he has long been a leader in the ice cream industry. He served in official capacities with the Kentucky Dairy Products Association and now is a director of the International Association of Ice Cream Manufacturers. He is one of Kentucky's oldest ice cream makers, having been in the business for thirty years.



**INCREASE YOUR SALES—DEVELOP THE  
PROFITABLE "OUTDOOR" MARKET WITH**

## ACORN VENDERS

Increased volume—increased prestige! "Ice cream stores on wheels" develop substantial new business. Beautiful, streamlined, attention-compelling equipment means important money-making possibilities. Ask us for data.

Buy Direct from the Manufacturer

**ACORN SHEET METAL MFG. CO., INC.**

625 W. Jackson Blvd. Established 1921 Chicago 6, Ill.



A complete line of  
Carts, Junior Carts,  
Tricycles, Trailers,  
Shoulder Boxes.

ACORN  
Model E  
Junior Cart  
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**\$39.50**

F. O. B. Chicago

*For The Finest*

**VANILLA No. 7**

*For The Quality Compound Vanilla*

**THREE STAR ESSENCE**

QUALITY  
IN FLAVOR

**VIRGINIA DARE**

SINCE  
1875

**VIRGINIA DARE EXTRACT CO. INC. BROOKLYN 32, NEW YORK**

#### **ANNOUNCES PURCHASE OF DENVER DAIRY**

John D. McEwen, President of Steffen Dairy Foods Company, Wichita, Kansas, announced recently that his firm has purchased the Garden Farm Dairy in Denver, Colorado.

#### **TO INSTRUCT ITALIANS**

Sam Charles Leo, Production Manager of A. Cardani, Inc., flew to Italy on March 16 to direct installation of ice cream manufacturing equipment in a plant in Milan. All the equipment is American-made, and includes machinery manufactured by Creamery Package, Fulton Engineering, Anderson Bros., and Dixie Cup. Mr. Leo will instruct the Italian ice cream makers in the art of producing French ice-cream — the American way.

#### **MEESE, INC. TO INCREASE SALES PERSONNEL**

Meese, Inc., Madison, Indiana has just announced a plan to increase its sales personnel, according to W. G. Harris, President. Territories have been re-assigned. New representatives have been added to the direct sales force. A strong representation will be maintained with jobbers and distributors who handle the Shamrock line of insulated shipping containers for ice cream and frozen food, and canvas baskets, hampers and trunks.

Meese representatives and their new territory assignments are as follows: John A. Wurtz: Illinois, Kentucky, Tennessee, Mississippi, Alabama and Georgia; Frank G. Hanson: Ohio, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, North and South Carolina; John T. McKeon: New York, Northern Ohio, Michigan, Minnesota, Wisconsin, Iowa, Nebraska, North and South Dakota; Charles B. Stoltz: Texas, Louisiana, Arkansas, Oklahoma, Missouri and Kansas.

#### **UNIVERSAL MACHINING NAMES DeVINNY**

Robert C. DeVinny has been appointed Sales Manager for the Universal Machining Co., Inc., Kenosha, Wisconsin, manufacturer of sanitary stainless steel fittings for the dairy, food, chemical, and beverage industries.

Mr. DeVinny was at one time associated with Marathon Corporation and more recently was in promotion and advertising for the Textile Bag Manufacturers Association of Evanston, Illinois.

#### **KEADY HEADS MARATHON CORPORATION**

D. C. Everest, President and General Manager of the Marathon Corporation, has announced that effective April 1, 1950, William L. Keady, formerly President of United States Gypsum Corporation, becomes President and General Manager of the Marathon Corporation. Mr. Everest will continue in an active capacity as chairman of the board of directors.



**WILLIAM L. KEADY**

Mr. Keady was an Annapolis graduate of the famous "Admiral" class of 1916 and a destroyer veteran of World War I. Following the war, he attended Columbia University where he received a Master of Science Degree in Engineering. He turned to private business in 1924 when he joined U. S. Gypsum. He spent twelve years in the production department, the last two years as Vice President in charge of manufacturing. From 1936 to 1942, he served as Vice President in charge of sales. From 1942 to 1949, he was President. He is a director of City National Bank of Chicago and a director of Montgomery Ward & Co., Incorporated.

"In Mr. Keady we feel that we have secured the services of one of the nation's outstanding management men. He possesses the experience we need at Marathon, one familiar with multi-plant operation and nation-wide sales organization and with an intimate knowledge of a completely integrated company," Mr. Everest stated.

"In selecting Mr. Keady, we have also assured ourselves of continuity of management in furthering our amazingly complex program, planned with deliberation and foresight by Marathon management and executed by hard work and loyal cooperation of some 6,000 Marathon people. He will admirably complement our other key executives and specialists who will continue in their various capacities," he concluded.

Marathon Corporation is a leading manufacturer of protective food packaging. Mr. Keady will make his headquarters at Menasha, Wisconsin.

## McGraw CONCENTRATE EMULSER "for the finest in ice cream"

McGRAW CHEMICAL COMPANY

811 SOUTH WABASH AVE., CHICAGO 5, ILLINOIS

### BORDEN'S E. G. QUESNEL RETIRES

Retirement of Edgar G. Quesnel, Safety Director of the Borden Company, has been announced by Harold K. Kramer, an assistant Vice President of the Company. Recently elected president of the Safety Executives Club of New York, Mr. Quesnel has headed Borden safety efforts since 1937.

Under his guidance, Borden operations have won numerous national safety awards. Last year, the Company's 30,000 employees in the United States and Canada set new all-time safety records: More than ninety-five per cent finished the year without a single lost-time personal injury accident; Borden drivers averaged 27,060 miles per vehicle accident.

Mr. Quesnel, widely known for his many contributions to safety, has been active in the field for thirty years. He first became interested in safety work after World War I, while serving as superintendent of an oil refinery in Madison, Illinois. In 1921 he became safety engineer for the Commonwealth Steel Co., in Granite City, Illinois. Entering government service as safety engineer for the St. Louis area, he later became safety director for the State of Kentucky. When he joined Borden's in 1937, he was assigned to the director of safety, in charge of 13 Midwestern states.

During World War II, he was regional director for the U. S. Department of Labor, supervising safety for war industries in six Eastern states. For his outstanding work, he received a citation of merit from the Secretary of Labor. In 1948 he was appointed by the U. S. government to represent American management at a special conference on accident prevention in Geneva, Switzerland.

Mr. Quesnel has discharged numerous important duties for both

national and local safety councils, the International Association of Milk Dealers and the National Council of Private Motor Truck Owners.

### WATTERS GETS SEALRIGHT POST

J. L. Dolphin, Vice President, Charge of Sales, Sealright Company, Inc., announces the appointment of Edmund A. Watters as District Manager, South Central States, with headquarters in St. Louis. Mr. Watters has been Sealright representative in the Carolinas and Southern Virginia since September, 1945, when he was discharged from the U. S. Army as Major.

Mr. Watters has already taken charge in his District which includes the sales territories centered at Indianapolis, Memphis, St. Louis and New Orleans.



EDMUND A. WATTERS

### PUBLICATION HONORS A. J. CLAXTON

Among the names appearing in Volume 26 of *Who's Who in America* for 1950-1951, is that of Alvie J. Claxton. Mr. Claxton is listed as business executive, President of Meadow Gold Dairies of Pittsburgh, Pennsylvania, and a director of the Beatrice Foods Company of Chicago. The biography traces his history through many phases of the dairy industry in Iowa, Illinois, Ohio and Pennsylvania. It lists his activities in many state, national and international trade associations, and in such groups as the American Dairy Science Association and the Food Technologists Society. He is described as a prominent public speaker and a prolific writer. He is a graduate of the University of Illinois, is married and has three children.



A. J. CLAXTON

## sugar cones



Crispy delicious SUGAR-SHELL cones mean more repeat business and bigger profits. Don't get caught short this summer, order your SUGAR-SHELL cones NOW.

FREE... "TASTE TEST". WRITE TODAY FOR A SAMPLE OF THE SUGAR-SHELL SUGAR CONE. TASTE IT YOURSELF.

FORREST BAKING CORP.  
3030 W. LAWRENCE, CHICAGO 30

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Several territories available. Generous  
commission. State complete history  
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N. Y.

### MRS. BOWMAN HEADS DAIRY COUNCIL UNIT

Virginia has joined the ranks of other key states in the country to organize a Dairy Council to cover the markets in five cities — Staunton, Waynesboro, Lexington, Harrisonburg, and Fredericksburg. This marks the 57th Dairy Council Unit in major cities from coast to coast designed to stimulate increased use of dairy foods. Its headquarters are at Staunton.

Claude J. McLain, he newly appointed President of the Board of Directors, has announced that Mrs. Lena E. Bowman, has been appointed Director of the Dairy Council Unit. Mrs. Bowman is a graduate of Madison College of Harrisonburg with a B.S. degree in Home Economics. Her experience includes serving in a grade school principal, home demonstration agent, and school teacher. She also has had extensive experience in 4-H Club work.

### CLINTON PR POST TO STANSBURY

Charles W. Metcalf, President of Clinton Foods Inc., has announced the appointment of H. H. Stansbury as Public Relations Director of the company and its subsidiary divisions — Snow Crop Marketers, Juice Industries of Florida and The American Partition Companies of Wisconsin and New York.

### GEORGE ANDERSON IS WED

Daniel Mahaffey Fry of the Standard Vanilla Company, Los Angeles, California, announced recently the wedding of his sister, Emma Frances, to George Andrew Morse Anderson of the King Company, Owatonna, Minnesota.

The ceremony took place in Somerset, Pennsylvania, on March 25. The couple will take up residence in Owatonna on May 1.

### JACK HUTCHINSON REPRESENTS BLOOMER BROS.

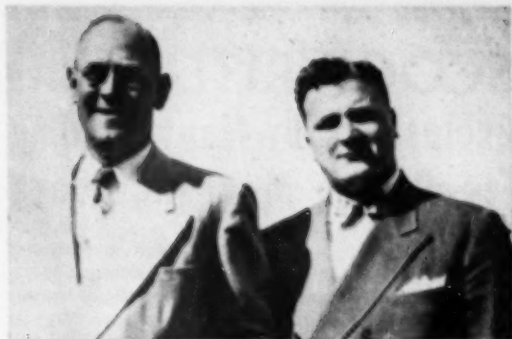
Jack Hutchinson is now representing Bloomer Bros. in the Pittsburgh area. He succeeds the late Harry L. Bush in that position on February 1. Mr. Hutchinson was formerly with Savage Arms Corporation.

Wallace Clarke has replaced Mr. Hutchinson for Savage Arms.

### JOSEPH H. DALY DIES

Joseph H. Daly of the J. H. Daly Company of Wallingford, Connecticut, died March 23. The funeral was from the J. W. Fitzgerald Funeral Parlors March 27 and Mass was held at Holy Trinity Church in Wallingford.

Mr. Daly had been associated with the ice cream industry for a number of years.



PAUL H. MUELLER (LEFT) AND FRED SHEA

### FRED SHEA REPRESENTS CLINTON FOODS

Paul H. Mueller, New England Sales Manager of Clinton Foods, Inc., Clinton, Iowa, has announced the availability of the new 1950 line of Clinton products for the ice cream manufacturer. Featured are "Clintose" Refined Corn Sugar, Clinton Corn Syrup, and Clinton Dried Corn Syrup.

The Clinton New England office covers the entire New England area, and Fred Shea represents the company in Connecticut, Rhode Island, and Southern Massachusetts.

### ALAN R. WHITE IS DEAD

Alan R. White, Treasurer of Hendrie's Ice Cream, Milton, Massachusetts and Treasurer of White Bros. Milk Company died March 7.

### BRASUEL JOINS McHALE

Troy Brasuel of Canyon, Texas, has joined McHale Manufacturing Company's sales force as representative for the company's line of stainless steel dairy equipment in the Western Texas territory, it was announced recently by Elmer O. Slavik, President of the stainless steel engineering and fabricating firm.

"We are extremely fortunate in obtaining the services of Mr. Brasuel as our West-Texas representative and consider his association with our company a valuable asset in our program of nation-wide expansion," states Mr. Slavik. "His years of experience with Jamesway Equipment have brought him a wide acquaintance among the dairy and creamery men of Texas."

**NESTLÉ'S**  
**RUNKEL'S**  
**CHOCOLATE FLAVORS**  
**COCOAS**  
**The Greatest Taste**  
**in Chocolate**  
**LAMONT, CORLISS & COMPANY**  
60 Hudson St., New York 13, N. Y.  
Branches in Principal Cities

**100% PURE MAPLE**  
**SYRUP AND SUGAR**  
**FOR FLAVORING**  
Write for further particulars from the  
World's Largest Packers of  
Pure Maple Products  
**CARY** **MAPLE SUGAR CO., INC.**  
ST. JOHNSBURY, VERMONT

# SCOOP-RITE Now Used Exclusively by Many Leading Ice Cream Manufacturers

The Scoop-Rite line is widely used all over the country, and has been a sensation in tie-in promotions to build bulk sales. All items are cast in solid one piece aluminum. Highest quality is combined with unusually low price.



## SCOOPS

Scoops a perfect circle with every dip, eliminates dipping loss. No sticking because aluminum alloy distributes heat 100 X faster than water. Vacuum grip on handle. Practically indestructible. Meets all sanitary regulations.

Low price makes Scoop-Rite ideal for retail take-home promotion... already proved by nation's leading manufacturers.

Available in several sizes.



## SPADES

Solid one piece aluminum, perfectly balanced, sharp. Will scoop several bulk packages without any dipping in water. Vacuum "No-Slip" handle. Large, medium and small sizes.

## DIPPER WELLS

The most durable on the market. Solid one piece aluminum construction. Inlet and outlet plumbing connections. Bright polished finish.



Write For Full Information

# SCOOP-RITE COMPANY

788 WILDE ST., DETROIT, MICH.

## CHRISTIAN R. LINDBACK DIES

Christian R. Lindback, President of Abbotts Dairies, Inc., died after a short illness on March 20 while on vacation in Miami Beach, Florida. He was seventy-two. Mr. Lindback had resided in Ventnor, New Jersey since 1926, and attended St. James Protestant Episcopal Church there.

Mr. Lindback served as President of the Philadelphia Milk Exchange from 1920 to 1938. In 1929 and 1931 he was President of the International Association of Ice Cream Manufacturers, and was also a former Director of the National Dairy Council.

In 1936 he was elected Alternate Delegate from the Atlantic City Congressional District to the Republican National Convention at Cleveland, Ohio.

In 1941 he was made a Trustee of Bucknell University, from which he received an Honorary Degree of LL.D. "in recognition for his notable contributions to the dairy industry... and to the health and social security of his fellowman."

For a number of years he served as Chairman of the Dairy Division of the Community Chest in Philadelphia.

He was born in Denmark and came to America with his parents at the age of four. After graduation from West Bend, Wisconsin, High School, he became his father's assistant in the creamery he operated. Later he became sales representative of the DeLaval Separator Company, manufacturers of cream separators. In 1909 he took charge of the Eastern office of the Creamery Package Manufacturing Company, with offices in Philadelphia. There he became acquainted with George Abbott, Quaker founder of Abbotts Dairies, and in 1912 became associated with that organization as Vice President. Two years later he became President.

The rise of the company since Mr. Lindback took over the management was rapid. From an organization doing a relatively small milk business in the city of Philadelphia, under Mr. Lindback's direction the company expanded in the milk, ice cream and cheese business to one of the largest independent dairy companies in the country.

Mr. Lindback is survived by his widow, who was Mary Falls of Philadelphia, daughter of the late C. Frank Falls. They were married in 1910.

Funeral services were held on March 24th at Oliver H. Blair, 1820 Chestnut Street. Interment was in Harleigh Cemetery, Camden, New Jersey.

## AMERICAN MAIZE APPOINTS BROKER

The American Maize-Products Company has announced its appointment of the Thomas E. O'Neill Company, Chicago, as exclusive broker representative for all Bulk Products.

The appointment became effective January 24 and covers Cook County, Illinois, excluding the city of Barrington plus Zion in Lake County.

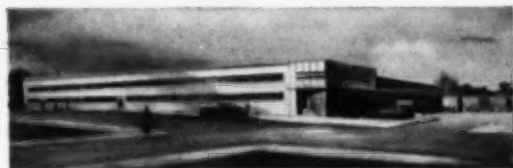


C. R. LINDBACK

## Business News

### H. A. JOHNSON PLANS BUILDING

Edwin C. Johnson, President of the H. A. Johnson Company of Boston has announced that the H. A. Johnson Company, manufacturer and distributor of food products, will begin work shortly on a new building with a 571-foot frontage on North Beacon Street, near Market Street in the Allston-Brighton area. (See the accompanying photograph of the architect's drawing of the building.)



The 136,000 square feet of property adjacent to the new buildings of the General Electric Supply Corporation and the Hathaway Baking Company, will be the location of a modernistic two-story structure with all the food manufacturing activities of the H. A. Johnson Company and its subsidiary, the Murray Company, as well as the offices, display rooms and cold storage facilities. The manufacturing area alone will comprise about 26,000 square feet divided between the first and second floors, so as to take advantage of gravity flow for many operations.

The cold storage area will consist of one room with below zero temperature for the storage of frozen fruits and vegetables, and another at about 40-below, for the proper keeping of dried fruits and nutmeats. The offices will be modernistic, air-conditioned and replete with fluorescent lighting.

The H. A. Johnson Company display room will feature all of the important items of bakery, restaurant and ice cream equipment handled by the Janes, Marshall, Bergeron Division, the equipment subsidiary, and will provide a place for sales meetings, demonstrations and employee gatherings. An employee's cafeteria seating 100 will service the plant.

The one-story warehouse section of the building will contain 60,000 square feet of unobstructed floor space with bays of 30 x 40 feet and an 18-foot ceiling for high piling. Nineteen truck doors on the Life Street side facing a paved trucking area, will provide adequate space for shipping and receiving by truck. A railroad siding of the Boston and Albany Railroad will parallel the entire rear side of the warehouse section with space for eight railroad cars.

Detailed plans are now in process of completion, and the ground will be broken as soon as frost conditions permit this Spring. It is expected that the building will be completed and ready for occupancy by November of this year. The Austin Company of Cleveland are the architects, engineers and builders, and details for the H. A. Johnson Company are being handled by a building committee consisting of J. L. Sweetman, Assistant to the President and Vice President of the Murray Division; A. L. Griffin, Executive Vice President; A. R. Turner, Vice President in charge of Manufacturing; and J. E. Auchmoody, Assistant Treasurer.

### GOOD HUMOR REPORTS

Expenditures for "new cost-saving equipment" were cited by Joseph A. Meehan, President of the Good Humor Corporation, as the principal reason for the firm's record-breaking annual profit of \$697,878 achieved in 1949. Total sales for the year were also the highest the firm has ever recorded, Mr. Meehan noted in the annual report to stockholders.

### DRUG STORE SURVEY COMPLETED

Batten, Barton, Durstine, and Osborn, Inc., advertising agency, has recently completed its third in a series of studies on drug store operation. The latest phase of the survey deals with consumer opinions of today's drug stores.

Of interest to ice cream manufacturers is the fact that of those persons who commented on soda fountains, 52 per cent accepted the soda fountain as an integral part of the store without elaborating any further on the subject; the remaining 48 per cent said they would have a soda fountain but cited such contingencies as location, cleanliness, personnel, etc.

### NORTH STAR HAS NEW STORE

North Star, Inc., with offices in Muncie, Indiana, has opened a new retail store in Anderson, Indiana. James E. Davis is President of the company.

### IN NUT ICE CREAM

## The Flavor of the Nut Is All-Important

No ice cream plant executive will question the statement that in making good quality nut ice cream the flavor of the nut is all important. He knows that to give his ice cream just the right taste, the nuts he uses must have a rich, full bodied taste—be crisp and meaty—be strictly fresh. And—especially important in these days of increasingly strict health authorities—the nuts must have absolutely no off flavors. They must provide the pure wholesome nut flavor that can be obtained only from top quality nuts.

To be sure of getting best quality at reasonable prices, more and more ice cream companies are turning to nutmeats prepared by The Assorted Nutmeats Co. This month we are featuring two truly delicious nuts.

## Buttered Select Pecans and Butter Toasted Almonds

All of our nuts are prepared fresh to order, vacuum sealed in air tight shipping containers, and rushed to you. Write for prices today.

**The Assorted Nutmeats Company**  
4106 Main St. Pittsburgh 24, Penna.



## again in '50 the SWING is to **SAVAGE** ICE CREAM CABINETS

Turn to  
**PAGE 3**  
and you'll  
see why!

### DICED CREAM BUYS CAMELLIA

The sale of Camellia Creameries, Inc., to the newly organized firm, Houston Diced Cream Company, for \$700,000 was consummated February 23 at the First National Bank in Houston.

E. L. (Bud) Walker, an executive of Arden Farms Company, of Los Angeles, completed the deal with Bill Williams, President, and A. L. Parker, Secretary-Treasurer of Camellia Creameries, after several weeks negotiations.

A \$100,000 remodeling program began at once at Camellia's plant and retail store at 2066 Westheimer. New equipment will be installed. The plant will remain open during the sixty days the work will be in progress.

As part of the transaction, all officials and common stockholders of the Camellia concern have become preferred stockholders in the Houston Diced Cream Company.

A specialty of the company will be "diced ice cream" which is being distributed nationally. The name Camellia will be preserved and used in connection with all advertising.

### FENN BROS. LAUNCHES CAMPAIGN

The first postwar advertising drive for Butter Brickle, a candy ice cream flavoring manufactured by Fenn Bros., Inc., is being launched this month, the Sioux Falls, South Dakota, firm has announced. A twin-pronged drive will be directed to ice cream manufacturers through both trade paper advertising and direct mail, it was revealed.

A unique feature of the direct mail campaign is the enclosure of a sample of Butter Brickle in a glassine bag right along with the letter. Manufacturers are urged to taste the product on the spot and judge its potentialities.

Another feature of the advertising campaign is a "guaranteed satisfaction or money back" offer. Manufacturers are asked to try a ten-pound can of Butter Brickle which will make thirty gallons of ice cream. Then a consumer test is to be made of this ice cream and if it does not live up to claims made for it, the cost of the ten pounds of candy flavoring will be refunded by Fenn Bros.

### FEBRUARY ICE CREAM PRODUCTION UP 4%

Production of ice cream in the United States, estimated at 33,105,000 gallons in February, was 4 per cent greater than in February last year and 10 per cent greater than the 5-year February average, the Bureau of Agricultural Economics reports. Compared with the January production on a monthly basis, the February output was 5 per cent greater; on an average daily basis it was 16 per cent greater.

Sherbet production in the United States in February estimated at 750,000 gallons, was 19 per cent above that of February 1949, but was 54 per cent less than the 1944-48 February average. Between January and February, output increased 10 per cent; compared with a 12 per cent gain last year and a 5-year average of 28 per cent.

### NEW BONNIE DOON DRIVE-IN

H. J. Muldoon, President of the Bonnie Doon Ice Cream Corporation, disclosed recently that his company is building a new \$100,000 drive-in that will be completed by May 1. The Indiana ice cream firm's four-color newspaper advertisements are the talk of the industry. In a recent promotion of half-gallon packages, the four Bonnie Doon stores sold more than 1,500 gallons in one day. This promotion was supported by an outstanding advertisement that appeared in the local press on the day of the sale.

### CONTRACT AWARDED FOR PLANT ADDITION

Lawrence Gussman, Vice President of Stein, Hall & Company, Inc., announced recently the award of a contract to the Turner Construction Company for the erection of an addition to the plant of its subsidiary, the Stein-Davies Company, in Long Island City for the manufacture of adhesives, textile and paper sizings and industrial food products.

The project involves a five-story and basement building, 90 by 10 feet, with laboratory facilities on the fifth floor. Alexander D. Crosett is the engineer. Work will commence immediately and the project is scheduled for completion next October.

What will you pay for a 7000 gallon mix stop?



Carvel Dairies, Div. of Carvel Corp., will deliver the entire package, including operator. Contact us today.

**CARVEL CORPORATION** 350 West 35th St.  
New York, N. Y.

Established 1914

## PURO STABILIZERS

For Puratizing Fruits, for Ripples, for making Fudge Ripple Sauce, also Sherbets & Ices.

The Standard for Over 25 Years!

**BALCH** FLAVOR  
COMPANY  
(PURO DIVISION)  
1309 ADAMS STREET PITTSBURGH 12, PA.

SHOWN TALKING over "The Star Spangled Revue" sponsored by Frigidaire Easter Sunday are left to right: P. M. Bratten, General Sales Manager of Frigidaire; Bob Hope, who was seen in the starring role, and L. A. Clark, Assistant General Sales Manager, Frigidaire.

## BOB HOPE ON TV FOR FRIGIDAIRE

Bob Hope made his television debut in Frigidaire's 90-minute show over the National Broadcasting Company TV Network Easter Sunday. Many other big-name entertainers appeared with him.

Hailed as one of the top TV shows of the year, the "Star Spangled Revue" was telecast over twenty-eight basic NBC television stations between 5:30 P.M. and 7:00 P.M. (EST), April 9. On April 16, the entire one and one-half hour show will be rebroadcast by twenty-eight more TV stations affiliated with NBC, but without network cable facilities. Time will be announced later by individual stations.

The supporting cast included Dinah Shore, Douglas Fairbanks, Jr., and Beatrice Lillie. In addition, many other well-known performers participated in the show.

Significantly enough, the special holiday program that attracted the interest of four national networks before it was finally scheduled, marked the first network TV venture of Frigidaire, one of the foremost refrigeration and appliance manufacturers in the country. The same holds true for Mr. Hope.

From a promotion standpoint, Frigidaire is employing the "Star Spangled Revue" as a kickoff for one of the most powerful spring selling drives in its history. The campaign will be backed up with consistent large-space-advertising in national magazines, newspapers and other media. In addition, it will be stimulated by Frigidaire's traditional aggressive merchandising program in the hands of 40,000 dealers and salesmen across the country.

## CLINTON VOLUME, PROFIT SET RECORD

Clinton Foods Inc., reported to stockholders recently the greatest sales volume and net profit in the history of the company.

Charles W. Metcalf, President of Clinton Foods, in his Annual Report showed net earnings up from \$853,652 in 1948 to \$3,912,712 in 1949, which are equivalent to \$3.67 per share on the 1,058,597 shares outstanding as of December 31, 1949, as against \$1.14 per share on the 750,995 shares outstanding on December 31, 1948.



## LIGGETT FOUNTAINS CLEAN UP

Liggett Drug Stores recently participated in a "clean-up contest" as part of a drive for higher sanitation standards. A television set, wrist watch, and handsome plaque were given as prizes. A store in Yonkers, New York was declared the winner.

## CITY PRODUCTS CORPORATION REPORTS

William J. Sinek, President of City Products Corporation, announced recently a net profit for that Corporation for the year 1949 of \$5,396,948, or \$4.29 per share, after allowing for \$3,165,458 depreciation and \$2,910,000 Federal Taxes. Net sales amounted to \$72,824,813, the second largest net sales figure in the Corporation's history.

The Corporation's sales of the past few years show a substantial increase when compared with the sales of 1940 when they totaled \$25,688,000. This increase indicates the growth which has resulted from the diversification and expansion program entered into several years ago, a program which is being actively continued.

In the preceding year, net earnings were \$5,705,947, or \$4.52 per share on a total net sales of \$78,508,500.

Decrease in 1949 sales as compared with 1948—the largest ever reported—occurred principally in the Ice and Coal Divisions due in part to a reduction in shipments of perishables occasioned by crop failures in the South and West and to a limited supply of coal as the result of mine strikes and other adverse conditions in that industry. Operation of the Ice Cream and Dairy Divisions was extended to a number of new areas during the year and the earnings of this division show a substantial increase.

*When you want*  
**CHOCOLATE**  
*at its best... call* ★B★B★

Coatings and Liquors for the Trade  
Generous Samples on Request

**BLUMENTHAL BROTHERS**  
Manufacturers of Cocoa & Chocolate Products  
Margaret & James Sts., Phila. 37, Pa.  
FOUNDED 1900

## PROFITABLE BAR PRODUCTION for the Small Manufacturer

■ The NEVEC chocolate pop machine produces 120 dozen 10c pops or 180 dozen 5c pops in eight hours, with only 2 operators. With one additional operator, 240 dozen 10c pops or 360 dozen 5c pops may be produced.

■ Average cost of complete production including boxing is only 45c per dozen 10c chocolate coated bars.

■ Standard two-gallon brick molds or two-quart molds may be used in preparing bars. Simple, trouble-free operation.

■ Dripping top, tank, and clip bars all Stainless Steel. Angle iron construction.

The NEVEC machines will grow with your novelty business. You can use it for coating bars with a brine tank later on.

For complete information write  
**New England Vending Equip. Co.**  
WEBSTER, MASSACHUSETTS



## DIXIE CUP BILLINGS INCREASE

Sales and net earnings of Dixie Cup Company in 1949 were the largest in the history of the Company. Gross billings were \$29,321,081, an increase of approximately 18% over 1948.

The consolidated net income amounted to \$1,953,443, or \$7.44 per share on the Common stock outstanding after annual dividends of \$2.50 per share had been paid to Class A stockholders. These figures compare with the 1948 figures of \$1,805,068, or \$6.70 per Common share.

The Company continued to expand plant and equipment facilities during 1949 to keep pace with market requirements. A new plant was opened in Canada and a large warehouse, one of the most modern in the paper converting industry, was constructed adjoining the headquarters plant in Easton, Pennsylvania. The outlay for capital expenditures during 1949 in both United States and Canada amounted to \$2,162,210 and brought the total of post-war expenditures for replacement and added facilities to approximately \$10,000,000.

## NEW FLORIDA PLANT PLANNED

A million gallons of ice cream will be processed yearly at the new McArthur Jersey Farm Dairy plant to be built in the block between NE 2nd and 3rd Avenues, and 68th and 69th Streets, Miami, Florida. Architect for the plant is Robert Fitch Smith and engineer, A. B. Kononoff, Perry E. Willis, Inc. is general contractor. Total cost will be over \$1,000,000, including machinery. When the plant is opened, about January 1, 1951, it will be capable of processing 30,000 gallons of milk daily. Milk to be processed will be brought by tank car from Hollywood. Parking and loading facilities are provided in the rear of the building.



INCREASE  
YOUR  
GALLONAGE  
*feature*

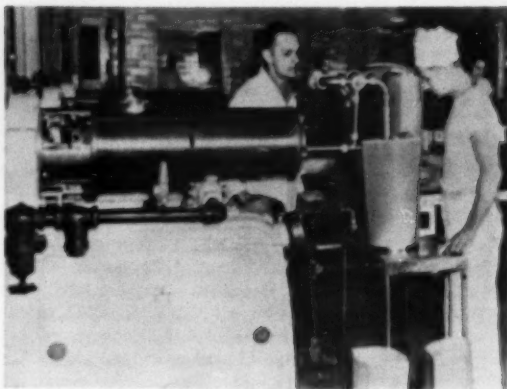
## SUNDAETTES

THE ORIGINAL AND NATIONALLY ADVERTISED TAKE HOME ICE CREAM TOPPING. PACKED 6 OZ. GLASS JARS. CHOSEN BY LEADING ICE CREAM MANUFACTURERS FOR TIE-IN SALES.

**MAX AMS - H. BARON**

DIV. OF AIRLINE FOODS CORP.  
EST. 1900

Linden, New Jersey



WALGREEN DRUG Stores has new commissary and ice cream plant to serve the Chicago area. The ice cream plant features modern equipment, including five continuous-type freezers that together put out over 1,000 gallons of ice cream per hour. The photograph shows five-gallon bulk containers being filled.

## BORDEN ICE CREAM PROFIT UP

Although the Borden Company's fluid milk sales volume improved last year, dollar sales declined because milk prices were generally lower. Theodore G. Montague, President, revealed in his 1949 annual report to stockholders and employees.

In Metropolitan New York, he said a milk price war which could not be justified on economic grounds broke out in October and reduced prices so drastically that the Company's fluid milk operations there were put on a profitless basis. However, the Fluid Milk Division as a whole had a satisfactory year, being aided by the relatively good showing it made in other parts of the country. To improve the efficiency of its fluid milk operations, Borden's adopted three-times-weekly milk deliveries in many markets to replace delivery on alternate days.

The Company's ice cream business showed an improvement in profit although some reduction in gallonage accompanied a declining national consumption.

Total sales of The Borden Company and its consolidated subsidiaries in 1949 were \$613,763,267, about 5.5 per cent less than the 1948 record of \$649,592,375, Mr. Montague reported. The over-all volume of goods sold was maintained, he said, and the reduction in dollar sales was the result of lower selling prices for the Company's principal products.

Net income of \$21,890,479 was the best in the Company's history and was 14 per cent greater than the \$19,179,427 earned in 1948. Earnings were \$5.10 per share as compared with \$4.46 in the previous years. The rate of profit was 3.57 cents of the sales dollar, as compared with 2.95 cents in 1948 and the 20-year average of 3.30 cents.

Dividend payments of \$11,593,320 were the highest in 18 years.

## FRANKLIN PRODUCTS SEEKS REPRESENTATIVES

Franklin Products Corp., Chicago, announced recently that H. Diamond, Manager of the company's Soda Fountain Division, is now interviewing prospective representatives for a well-known line of drink mixers and ice cream dishes. Mr. Diamond, on an extensive, country-wide trip, plans to select representatives in numerous desirable territories.

## ZEROLL ICE CREAM DIPPER

Sizes—12, 16, 20, 24,  
30. Price \$2.40  
ea. f.a.b.  
Toledo,  
Ohio.

The high speed commercial dipper. Completely self-defrosting. Releases portion instantly when touched to dish.

## BULKROLL ICE CREAM DIPPER

A new, giant dipper for Roldipping ice cream from bulk con into hand packed pints and quarts. Does not compress the over-run.  
Price \$1.50 ea., f.a.b. Toledo, Ohio.



## ROLDIP REG. U.S. PAT. OFF. REG. IN CANADA

A coined word suggestive of the way Zeroll, Nuroll and Bulkroll dippers cut and roll the portion without packing.

# DIPPERS

## That Work For You

Roldipping ice cream with a Zeroll dipper will cut down labor cost, eliminate waste, shrinkage losses, speed service, and assure adequate profit. Thousands are using Nuroll dippers to boost sale of bulk units for home serving. Ask about this. Write for complete data.

## NUROLL REG. U.S. PAT. OFF. Descriptive Trade Name—Manufactured ICE CREAM DIPPER

The low-priced dipper for home users. A great sales promotion item. Sizes No. 16, 20 and 24. Price \$1.35 each f.a.b. Toledo, Ohio.

Reconditioning of old Zeroll dippers is inexpensive. Send them in or write.  
**The  
ZEROLL  
Company**  
2610 Railroad Ave.  
Toledo 10, Ohio

## TRANSFER SPADE A Zeroll Product

A strong, perfectly balanced tool for transferring ice cream from one bulk container to another. Price \$1.50 each f.a.b. Toledo, Ohio.

Continuing improvement in operating efficiency, coupled with lower costs, the report points out, resulted in an increase in earnings from \$4.03 a share in 1948 to \$5.26 a share in 1949, on approximately the same number of shares. This represents a profit of 3.7 cents per dollar of sales, compared with 2.6 cents in 1948. Dividend payments in 1949 totaled \$2.20 a share, the highest dividend the Company has paid in 17 years and an increase of 40 cents a share over 1948.

Characterizing the Company's report as "the story of many people working together to provide quality products and services for millions of other people," Mr. Van Bomel summarized the year's results as follows:

"In 1949 consumers bought more of our products, and, we are glad to say, at lower prices. The farmer, from whom we buy milk and other farm products, continued to enjoy a profitable market for his produce. Our employees earned good wages. Our stockholders realized an improved return on their investment.

"These benefits, flowing to many people, are the best evidence of the success of our operation during the year. They are the results in terms of people—investors, employees, farmers, customers and the public generally."

## AUTOMATS CUT ICE CREAM PRICE

Patrons of the Horn and Hardart chain of Automat food stores were surprised early last month when check-out clerks at food counters informed them that the standard portion of ice cream now costs only ten cents as compared to fifteen cents previously.

The ten-cent serving consists of the same quality, same size ice cream for which customers of the Automats had paid a nickel more.

## BAKER HAS NEW POLICIES

Distributors of The Baker Refrigeration Corporation were advised recently of the Company's newly reorganized Sales Department and Frederick V. Smith, Vice President in Charge of Sales announced Baker's new manufacturing and sales policies.

Baker is discontinuing contracting operations in Omaha and St. Louis and distributors are being appointed to handle all Baker Sales, Service and Contracting work in these areas. The Central Ice Machine Company will be the Omaha Distributor and the St. Louis Distributorship plans will be announced soon.

Mr. Smith announced that the present Baker contracting branches on the West Coast located at Seattle; Portland, Oregon; San Francisco and Los Angeles would not be changed due to the geographic location and the specific types of business served in these particular areas.

## NATIONAL DAIRY CITES LOWER PRICES

Price reductions to consumers and increases in earnings, dividends and the aggregate volume of products sold highlighted National Dairy Products Corporation's operations in 1949. L. A. Van Bomel, President, announced in the annual report distributed to stockholders recently.

"The Company's dollar sales in 1949 were \$897,675,000, compared with \$986,404,000 in the preceding year," Mr. Van Bomel stated. "This decline in dollar sales was due entirely to price reductions to consumers. The aggregate volume of products sold increased. We regard this as a healthy trend, enabling us to serve more people."

## 1950 DELUXE MODELS



*Pushcycles, Tricycles, Ice Cream Cabinets*

**HERE IS A REAL PROFIT MAKER  
SHOULDER BOXES**

**EXTREMELY LIGHT • PLASTIC • INSULATED  
ECONOMICAL • ATTRACTIVE**

*Write for further details*

## WORKSMAN CYCLE

**WORKSMAN TRADING CORP.**

446-456 ADELPHI ST.

BROOKLYN 17, N. Y.



FINAL INSPECTION of vanilla beans is being made in the Massey Inc. curing house in Gutierrez Zamora, Mexico. After another sunning and sweating, the beans will be placed in observation boxes prior to being shipped to the firm's Chicago warehouses. At the right in the photograph is C. J. Nielsen, Secretary-Treasurer of the vanilla firm.

#### BORDEN BEGINS RADIO-SELLING CAMPAIGN

Two days after it left network radio on April 1, The Borden Company began a concentrated selling campaign in ninety markets over about 100 stations. Seven New York and two Chicago stations were selected for those two markets.

"Let Yourself Go," a half-hour variety program on WNEW, New York, is heard five days a week. The show was tailored particularly for Borden's advertising needs by the station. The company is participating in the Jack Sterling, Bob Smith, Martha

#### Velvet Smooth Ice Cream in less time... less cost...



#### Spray-Dried Corn Syrup Solids

We can help you make the finest ice cream your customers have ever tasted! The complete facilities of our laboratories are at your service to help you with technical problems.

#### Try A Trial Batch With OK

and prove to yourself how much OK can do to give you a finer product at lower cost. See your Hubinger representative or write direct.

#### THE HUBINGER CO., Keokuk, Iowa EST. 1881

Confectioners' Corn Syrup, Thin Eating Starches, Moulding Starches

The "Feature" Line of FOUNTAIN EQUIPMENT



**INSIST . . .**  
on these outstanding features

- Slide-out Compressor
- All-dry Refrigeration
- Simplified Plumbing
- Deep Draw Sinks
- No Messy Water Bath
- All Stainless Steel Interior
- Low Installation Cost
- Everfrost Safety Pump
- Pre-Cooled Carbonation

Immediate Delivery From Local Warehouses

**ANDERSON & WAGNER INC.**  
8701 South Muller Street - Los Angeles 3, Calif.

Deane, and Nancy Craig shows on various New York Stations, five to six days a week; and is purchasing spot announcements on WMCA and WMGM three days a week.

In Chicago, Borden's has bought the Dave Garraway afternoon program over WMAQ, and is producing its own show in the "June Davis' Hostess House," over WGN.

Cowan and Dengler is the agency for "June Davis' Hostess House." All other billings in New York and Chicago are handled by Young and Rubicam.

#### LAMONT, CORLISS AND POND'S SEPARATE

Plans for the final separation of Lamont, Corliss & Company and the Pond's Extract Company are now completed. The separation became effective April 1, it was announced by Clive C. Day, President of Lamont, Corliss & Company.

Lamont, Corliss will devote its entire time and attention to promoting and selling Nestle's Chocolate Products while Pond's will distribute independently its creams and toiletries.

In connection with the separation of the two companies, a number of changes on the selling and merchandising levels have been made.

H. Kenneth Philips, Vice President of Lamont, Corliss & Company, who has occupied the position of Merchandise Manager, has been assigned broader duties with the firm through his appointment as Vice President in charge of Operations.

Donald Cady, recently named as Vice President of Lamont, Corliss & Company, succeeds Mr. Philips as Merchandise Manager.

### SCHMICK'S PROMOTION ADVERTISED

Schmick's Ice Cream, 534 Broadway, Elmira, New York, promoted recently a special combination offer of four quarts of ice cream for \$1.50 through a large newspaper ad.

The offer included four different quarts of four different flavors, consisting of three quarts of ice cream and one quart of the customer's favored ice.

In the same ad, the firm urged readers to listen to Schmick's regular program over Station WENY, Elmira.

### MASSACHUSETTS LAW PASSED

The Governor of the Commonwealth of Massachusetts on March 22nd signed a bill which amends the Massachusetts Ice Cream Law. The amendment provides that ice cream shall weigh not less than 4.5 pounds to the gallon net. This amendment will become effective ninety days from the date of signing.

### DAIRY GUILD INSIGNIA DESCRIBED

A golden insignia similar to the treasured symbols used by skilled guildsmen in medieval days will provide distinctive recognition for establishments in the fresh dairy product field eligible for membership in The Dairy Guild.

The Dairy Guild was described as a voluntary association endeavoring to aid "better health and living" for consumers and identify highly-skilled makers of "dairy foods of excellence."

Formal launching of The Dairy Guild was disclosed March 8 at a dairy products merchandising and research conference attended by industry representatives from all parts of the United States and Canada convened for a three-day school held at the Cincinnati Club.

Headquarters for The Dairy Guild will be maintained at 1207



## ELECTRIC DRY ICE CUBER

(Counter style)

Reduces a slab of dry ice into 20 cubes in only 2 minutes, or a total of 200 cubes per block, each cube measuring 2½" x 2" x 1" and weighing 4 ounces each.

Takes up small space—fits neatly on the counter.

Operates on 110 volts AC.

Distributed by PRICE: **\$100.00** F.O.B. Chicago



Write for circular and further information

**JIFFY MANUFACTURING COMPANY**  
360 FLORENCE AVENUE • HILLSIDE, N. J.

## YOU'LL SLEEP BETTER TONIGHT--



If You Know That  
**AVENEX** Is Guarding  
Your Ice Cream!

It's a great comfort to know that **\*AVENEX**, the well-known food antioxidant, is on the job, protecting your ice cream against oxidized and off-flavor worries.

**AVENEX** protects the freshness in which you take so much pride . . . Vanilla is delicious . . . Strawberry and peach ice cream have the rich, true flavor of the original fruit. And *that's* what brings your customers back for more.

It's surprising—but **AVENEX** gives you all of this at no extra cost. Send for information **AND FREE SAMPLE.**

CALL YOUR LOCAL OFFICE OF

**The Quaker Oats Company**

OR WRITE TO **AVENEX CORPORATION**  
250 West 57th St., New York 19

*Originators of Commercial Food Antioxidants*

# AVENEX

THE PURE FOOD STABILIZER AND ANTIOXIDANT

West Eighth Street, Cincinnati through accommodations provided by the G. P. Gundlach & Company, Cincinnati, merchandising and marketing organization serving the fresh dairy products field for thirty years.

The announcement pointed out that "development of The Dairy Guild objectives will seek to have cooperation of the member-guildsman in the milk, dairy products and ice cream business at the purveyor and home level of the consumer."

C. W. Esmond, Vice President of the Gundlach organization and widely known in dairy products merchandising, will serve as Executive Director of The Dairy Guild.

R. J. Winning, associated with the dairy products industry for twenty years and recently appointed to the Gundlach organization, will also be identified with the development program of the Guild. Mr. Winning had long been identified with the National Dairy Products Corporation in Cleveland, Ohio and in New York City, including a successful career with Sheffield Farms, Inc. in the metropolitan New York area.



DAIRY GUILD  
EXECUTIVES  
WINNING  
(LEFT) AND  
ESMOND.



*A standing invitation  
to take your troubles to*

# American Food's TASTE AND TEXTURE CLINIC

**Dedicated to the improvement of your products and lower production costs**

American Food Laboratories, Inc., 840 Atlantic Avenue, Brooklyn 17, N. Y.

## Classified Advertising

### FOR SALE

**FOR SALE:** 1 Cherry-Burrell fruit feeder model FFB, serial number 159, in good running condition. Was purchased in 1936. 1 Milwaukee Nuline bottle filler, model G-160 capacity 72 quarts per minute, 84 pints per minute, right hand feed, 1/2 H.P. 220 volt A.C. motor. Cappers and star wheels for 36 MM round bottles. Can be converted to run square bottles. In good condition. Can be seen at Fairmont Foods Co., 2310 W. 17th St., Cleveland, Ohio. MAin 1-8450. Contact Mr. Wright or Mr. Paul. This piece of equipment was purchased in 1939.

**FOR SALE:** Ice cream freezer. Taylor Du-more self-contained laboratory type. 2 gal. capacity with built-in refrigerating unit. At a bargain price. Box #298, ICE CREAM FIELD, 19 W. 44th St., N. Y. 18, N. Y.

**FOR SALE:** Several 1949 Chevrolet vending trucks and 1 ice cream body for a ton truck. Reasonable. Write Box #300, ICE CREAM FIELD, 19 W. 44th St., N. Y. 18, N. Y.

**FOR SALE:** Small ice cream manufacturing plant, also retail outlet, located in south Mississippi. Good territory with chance for enlargement. For further details write Box #299, ICE CREAM FIELD, 19 W. 44th St., N. Y. 18, N. Y.

### FOR SALE

**FOR SALE:** 60 to 150 gallon Continuous Freezer; 40 to 100 qt. Direct Expansion Batch Freezers; 100 to 500 gallon Pasteurizers with stainless steel linings; Four Jensen Stainless Steel Cabinets. Coolers each containing 8 wings 36 tubes high; Mojonner Stainless Steel Cabinet Cooler with 6 wings 72 tubes high; 10 ft. Creamery Package Direct Expansion Cooler Section 14-2" stainless steel tubes; Cherry-Burrell Junior and Senior Cabinet Coolers with tinned copper tubes; 125 to 1500 gallon homogenizers or viscolizers; 1000 gallon Cherry-Burrell Horizontal Coil Vats with stainless steel linings and tinned copper coils; 36 Mold Reinhardt Popsicle Tank; 3 ft. to 6 ft. Stainless Steel, also Copper Vacuum Pans. Write or wire your requirements. Lester Kehoe Machinery Corp., 1 East 42nd St., New York 17, N. Y. Telephone MUrray Hill 2-4616.

**FOR SALE:** 100 and 150 gallon S. S. Cherry-Burrell pasteurizers; 750 ft. of 1 1/2" Ammonia Coils; Quart and pint cases for round bottles. Write Shively's Dairy, 454 Norland Ave., Chambersburg, Pa.

**FOR SALE:** 1 new all steel custom built service maintenance body—3 compartments each side—brass door hinges, recessed cylinder lock handles—Built to suit 53" cab to axle measurement. Box #304, ICE CREAM FIELD, 19 W. 44th St., N. Y. 18, N. Y.

### FOR SALE

**FOR SALE:** 1 200 gallon per hour Mojonner Bros. stainless steel cabinet cooler direct expansion. Pickwick Ice Cream Co., Stamford, Conn.

**FOR SALE:** 650 gal. ice cream body with 4 ammonia plates, for long wheel base truck, has 2 side doors and 1 rear door. In good condition. John A. Mistor, 3310 Lockwood Ave., Detroit 10, Mich.

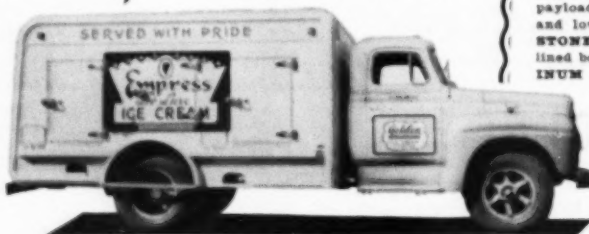
**FOR SALE:** Complete ice cream vending organization. Perfectly suited for small ice cream manufacturer consisting of: Fully insulated Dodge panel truck with built-in new 1/2 h.p. compressor for A.C. outlets, 2 Dole heavyduty Kold Hold plates, 400 dob. capacity, 2 new bike type vending carts, 4 pusher-type carts, several 2 wheel carts; Dry ice chest for 400 lbs., plus miscellaneous equipment. Locally established. Will sell with registered trade name. Will sacrifice for immediate sale \$2350. Should pay for itself in one year. For further information write: Red Rider Enterprises, P. O. Box 195, Michigan City, Ind.

**FOR SALE:** 100-used 3-oz. ice cream bar molds with Stick Holders, also 100 twin Sucker Stickholders. All in good condition. Box 305, ICE CREAM FIELD, 19 W. 44th St., N. Y. 18, N. Y.

## ALL-ALUMINUM!

IT'S A  
LIGHT-  
WEIGHT  
"CHAMP"

by  
*Keystone . . .*



KEYSTONE WAGON WORKS, INC.  
Founded 1944  
2nd & Norris Sts., Phila. 22, Pa.

To those who demand maximum payload, together with ruggedness and low maintenance cost, KEYSTONE suggests modern, streamlined bodies in lightweight ALUMINUM construction . . . with efficient lightweight insulation. The 900 gallon style illustrated, mounted on a standard chassis, features 3 doors on both sides for accessibility; self-contained compressor with hold-over plates, and many other exclusive KEYSTONE features. Prices and details on request.

WRITE TODAY

**\*No charge for any of the following services:**

- (a) Analyses and new product development
- (b) Reformulation of your product and its ingredients
- (c) Practical application of latest scientific progress
- (d) Advisory service on the use of the following tested and approved products



**FLAVORS**

Vanilla Extracts and Powders  
Pure Coffee Concentrate  
True and Synthetic Fruits

**STABILIZERS**

Formula S-233  
STA-VEL for Ice Cream  
STA-VEL for Fruits

**EMULSIFIERS**

MARCOID (Liquid)  
WILCOID (Powder)  
CONCENTRATE "A" (Plastic)

**TASTE AND TEXTURE  
CLINIC**

Also **FOOD SPECIALTIES** such as VEL-MARSH Marshmallow Powder

**FOR SALE:** Two-wheel upright ice cream vending push carts. Size—outside height 28", width 18", length 22", capacity about 20 dozen. Fiberglass insulation solid tires on ball bearing wheels, 20-gauge all steel construction, baked enamel, \$39.50 each. Order now for early delivery. Ice cream vending trailers, tri-cycles, and 3-wheel push carts also available. Write for detailed information. Miller & Co., 3332 W. 25th St., Cicero 50, Ill.

**FOR SALE:** Vending Boats—Unlimited quantity, New (18x10x16) \$7.75 each. New England Vending Equipment Co., Webster, Massachusetts.

**FOR SALE:** One brand new fifty gallon soda fountain with two sink workboard \$1350.00. Nationally known make. Box 294, Ice Cream Field, 18 W. 44th St., N. Y. C. 18, N. Y.

**FOR SALE:** 1 Used 2½ gal. Taylor Ice Cream Freezer with 40 gal. hardening capacity plus mix storage—complete with condensing unit. \$275.00. 1 Used 2½ gal. Bastian Blending Ice Cream Freezer, complete with condensing unit. \$200.00. 1 Used 2½ gal. Ice Cream Freezer with 50-gal. hardening capacity plus mix storage—complete with condensing unit. \$200.00. 1 245 gal. Anheuser Busch storage and hardening cabinet complete with 1 HP air-cooled condensing unit (Used only 8 months). \$700.00. Patton Creamery Co., 809 N. Campbell Ave., Springfield, Mo.

**FOR SALE:** 2½ and 5 gallon used Metal ice cream cans, Eastern Squat Style, ready for use, bargain at 75c each, F.O.B. Cleveland, Ohio. Fairmont Foods Co., 2310 W. 17th St., Cleveland, Ohio.

**HELP WANTED**

**WANTED:** A manager for a small butter and ice cream plant in Central New York State. All around dairy plant experience needed, two batch freezers, one retail store, some wholesale stops. Answer giving length and type of experience and personal information. No application considered unless starting salary is stated. If you have confidence in your own work you can be sure of raises. Box 301, ICE CREAM FIELD, 19 W. 44th St., N. Y. 18, N. Y.

**WANTED:** Salesmen to represent us with our well-known line of flavoring extracts and complete line of ice cream novelty supplies. Liberal drawing account against large commissions. Southern and Western territories open, also New England. Box 303, ICE CREAM FIELD, 19 W. 44th St., N. Y. 18, N. Y.

**HELP WANTED:** Nationally advertised concern desires man to sell their processed fruits and extracts to the ice cream industry. Drawing account. Several choice territories open. Box No. 151, ICE CREAM FIELD, 19 W. 44th St., N. Y. C.

**WANTED TO BUY**

**WANTED TO BUY:** Ice cream truck. Snee Dairy, 766-68 W. Chestnut St., Washington, Pa.

**Rates**

**RATES:** machinery, equipment and supplies for sale or wanted to buy, 4c a word (including address) for each insertion; help and positions wanted, 2c a word (including address). Bold face type double regular rates. Minimum charge \$1.00.

**REPLIES** to advertisements in this department must be addressed to the name, initials or address shown in the advertisement or to Box numbers c/o Ice Cream Field, 19 W. 44th St., New York 18, N. Y. Under no circumstances will ICE CREAM FIELD divulge the name of an advertiser where initials or a number is given as the address.

**POSITIONS WANTED**

**POSITION WANTED:** California flavor man "you are a good, tested, proven salesman" (per 1950 employer letter), desires volume specialties. Draw and expenses. Write Roy K. Hess, Box 2081, Los Angeles 53, Calif.

**POSITION WANTED:** Sales representative with thorough experience in ice cream and dairy equipment and packaging industries. Current contacts throughout Washington to New England area. Seeks new connection. Write Box 293, Ice Cream Field, 19 W. 44th St., N. Y. 18, N. Y.

**VALUABLE HELP FOR YOUR DEALERS!**

Your Dealer's need is not merely the replacement of old Fountain Equipment. He also needs an expertly planned installation that will yield him a greatly improved volume of profitable sales.

He is entitled to the maximum results possible from the investment he makes.

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in Planning Service. We are interested in results our installations produce.

And you will find GRC Fountain and Luncheonette Equipment designed and built for sales results—modern, sanitary, attractive, easy to work on, and sturdily constructed for long years of high volume service. Our Sales Representative will welcome the opportunity to work with you.

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### CUSTOM BUILT- ALL-ALUMINUM



This lightweight refrigerated body is ruggedly built throughout of high strength heavy gauge aluminum . . . Custom built to specification. Cut your delivery costs to a bare minimum with Barry and Baily All-Aluminum lightweight bodies. Greater payloads at reduced hauling cost . . . Let us quote on your requirements.

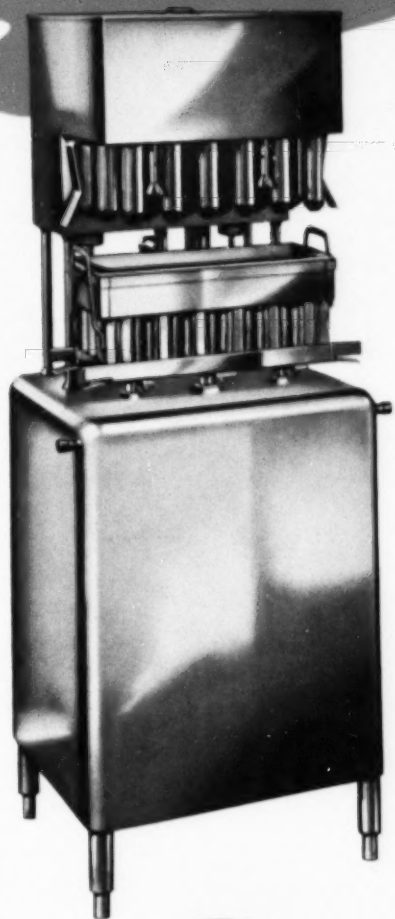
**BARRY & BAILY CO.**

2421 No. 27 Street

Philadelphia, Pa.

# IT'S NEW... IT'S TERRIFIC

## Anderson MODEL 40 LIQUID MOLD FILLER



### HANDLES TWIN OR SINGLE MOLDS... SPEEDS UP TO 12 MOLDS PER MINUTE

Here's the latest answer to high-volume, lower-cost production of popsicles. It is the new Anderson Model 40 Liquid Mold Filler for liquids and fudge mixes. Designed to save time and labor over previous methods, the machine performs on automatic cycle operation. After the mold — either single or twin — is in place, the operator presses the start switch and the air-operated table raises the mold to the filler nozzles. A measured quantity of liquid is dispensed into each mold pocket, and after being filled the table automatically lowers to starting position. If no mold is on the table when the cycle is started, no liquid is dispensed.

Feed is adjustable from 2 to 4 ounces per pocket, and this adjustment is controlled by sleeves in the nozzle tubes. Production rates up to 12 single or twin molds per minute can be attained by even semi-experienced operators.

### COMPACT • SANITARY • EASILY CLEANED

The Model 40 takes up little floor space — only 18" x 22". It is 58" high. All parts that come in contact with the liquid are of stainless steel, and these components are quickly and easily removed for cleaning. Nozzle ends are made of Neoprene and these can also be removed for thorough washing and rinsing. The machine is complete with an automatic float control for determining liquid level in the tank.

**MOLDS AND STICK HOLDERS, BAGGERS, STICK DISPENSERS,  
AND MOLD FILLERS FOR ICE CREAM ARE AVAILABLE . . .**



*Use this Handy Coupon for Quick Information*

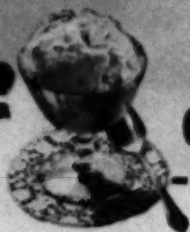
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above all others

# DARILOID and DRICOID



*Dariloid®*  
*Dariloid XL*  
*Dricoid®*  
*Dricoid XL*

• Dariloid and Dricoid have earned top ranking throughout the ice cream industry because they lead in proved advantages.

This established leadership is borne out by the fact that more ice cream is stabilized by Dariloid and Dricoid than by any other stabilizer or stabilizer emulsifier.

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- • • Natural Body
- • • Uniform viscosity of mix
- • • No masking of flavor
- • • High resistance to heat shock
- • • Clean, attractive meltdown
- • • No protein de-stabilization with resultant wheying off
- • • Sustained smooth texture
- • • Flexibility and wide range of stabilization

PRODUCTS OF

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